

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-04				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017 Base                      Option Period Number      4			Title of Work Assignment/SF Site Name Six-Year Rev. NPDWR				
Contractor Cadmus Group, Inc., The					Specify Section and paragraph of Contract SOW Section 1.7					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From 05/01/2016 To 04/30/2017					
Comments: Initial Work Assignment Issuance. Work shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
11/01/2012 To 04/30/2017										
This Action:						400				
Total:						400				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name    Kesha Forrest						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-3632				
						FAX Number:				
Project Officer Name    Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name    Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-04**

**A. TITLE:** Technical Support for Six Year Review of National Primary Drinking Water Regulations

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Kesha Forrest  
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**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Russ Perkinson  
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**D. BACKGROUND:**

Under the Safe Drinking Water Act (SDWA), as amended in 1996, the U.S. Environmental Protection Agency (EPA) must review existing National Primary Drinking Water Regulations (NPDWRs) at least once every six years, and revise them, if appropriate. This requirement is contained in Section 1412(b)(9) of SDWA. Any revisions to existing NPDWRs must maintain, or provide for greater, protection of the health of persons.

The review result to take no action on or revise a NPDWR is in part dependent on the re-evaluation of exposure to drinking water contaminants based on their health effects and occurrence. Compliance monitoring data is a key component in the Six-Year Review (SYR) process. Through the Information Collection Requirements (ICR) process, the Agency facilitates data sharing with States in order to obtain comprehensive nationally representative occurrence data.

To support the third round of 6-year review process, EPA needs to update the occurrence database to include compliance monitoring data from January 2006 to December 2011. Under this work assignment, EPA will



manage the compliance monitoring data obtained from the States under the Information Collection Requirements (ICR). The data will be analyzed in order to evaluate national occurrence/exposure to chemical NPDWRs and will be incorporated into a technical support occurrence document. This information will help to support decisions whether there is a meaningful opportunity to revision chemical NPDWRs as part of the third SYR (SYR3).

#### **E. QUALITY ASSURANCE:**

Task(s) 1, 2, 3, 4 & 5 in this work assignment requires the use of **secondary** data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed and approved under task(s) 1, 2, 3 of WA 0-04. EPA has determined that this approved SQAPP is appropriate for the tasks outlined in this Performance Work Statement. Based on this determination, the contractor is not required to modify the approved SQAPP for this action.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-04, 1-04 2-04 and 3-04. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under task(s) 1, 2 and 3 of WA 3-04. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Deliverables: Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

##### **Task 1: Statistical analysis and report on regulated chemical and radiological contaminants.**

Upon receiving technical direction from the EPA WACOR, the contractor shall perform and refine the detailed statistical analysis of the contaminants collected during WA 0-04 and WA 1-04 under this contract. Contaminants were selected by EPA for regulatory review and identified by the EPA WACOR through technical direction through WA 1-04 and 2-04. Under previous work assignments (i.e. WA 1-04, WA 2-04, and WA 3-04), the contractor has conducted a Stage 1 analysis that estimates the number and percent of systems (and populations served by these systems) with at least one analytical result greater than a specified concentration threshold for all specified contaminants. The contractor has also performed a Stage 2 analysis (for up to 30 contaminants) utilizing the analytical models developed by the contractor during the Six Year 2 review process. The exposed and total populations for both the "Stage 1 and 2" occurrence analysis were calculated using the Adjusted Population Protocol which took into consideration that some of the water systems were wholesalers and some were purchasers. Also, when feasible the contractor has performed these "Stage 2" analyses using a substitution method for non-detects (as conducted during the Six Year 2 review). The goal of these stage 2 analysis is to derive nationally representative distributions estimates of contaminant occurrence and exposure. The contractor has characterized Stage 2 occurrence and exposure at the thresholds (e.g. potential new maximum contaminant level goals or estimated quantitation levels) provided by the EPA WACOR under 2-04.

The contractor has used the Stage 1 and Stage 2 analysis described above to update the SYR occurrence document prepared under the previous SYR (The Analysis of Regulated Contaminant Occurrence Data from Public Water Systems in Support of the Second Six-Year Review of National Primary Drinking Water Regulations). A draft occurrence document for SYR 3 was submitted under WA 3-04, along with appendix chapters (one for each of the ~17 priority contaminants). The WACOR has provided comments on the draft occurrence document and the appendix chapters under WA 3-04. The next draft of the occurrence document with EPA's first round of comments incorporated is expected to be submitted under WA 3-04. The contractor shall provide up to two additional iterations under this work assignment: 1) incorporating comments from workgroup and management and 2) incorporating updates prior to publication.

The draft occurrence document shall be used for internal deliberative discussions and finalized for public audience.

**Deliverables:** For work planning purposes, up to 2 additional iterations of the SYR occurrence document may be required: 1 additional draft and 1 final draft.

## **Task 2: Additional Data Collection and Analyses**

Based on written technical direction from the EPA WACOR, the contractor shall collect and gather additional occurrence and/or treatment data. If appropriate, the contractor shall recommend technical approach(es) to collecting information such as performing literature searches, contacting experts, or conducting a small survey (less than nine entities per issue) to assist in the consideration of up to four occurrence- exposure related issues identified by the EPA WACOR as needing further analysis. Occurrence/exposure related issues may include but not be limited to the following: intra-system variability of contaminant sources, co-occurrence, and trend analysis, relation to land cover, land use/practices and potential natural contaminant sources. The methods and protocols, including quality assurance procedures, for gathering information shall be submitted to the WACOR for approval. As specified in written technical direction, the contractor shall review, critically assess, indicate assumptions made, summarize information, and develop conclusions based on information obtained and develop a summary of each issue identified according to a framework approved by the WACOR.

The contractor shall also provide copies of all the manuscripts obtained via literature search and an electronic bibliography of the manuscripts.

**Deliverables:** For work planning purposes, up to 3 technical analyses may be required. The contractor should assume three iterations of each document: 2 drafts and 1 final.

### **Task 3: Issue Papers and Technical Support**

The contractor shall develop issue papers and technical analyses as requested through written technical direction by the EPA WACOR. EPA anticipates that some issues may become high priority during this review process and may require analytical support for internal Agency decision-making processes. Upon direction from the EPA WACOR, the contractor shall collect summary information on particular contaminants or issues (e.g., methods, treatment options), risk assessment background and status information, and perform preliminary cost-benefit analyses.

**Deliverables:** For work planning purposes, up to 3 analyses may be required. The contractor should assume three iterations of each document: 2 drafts and 1 final.

### **Task 4: Development Document Revisions**

During the second Six Year Review, EPA compiled internal documentation outlining the process EPA used in managing, QA/QC the occurrence data. Per technical direction the contractor shall update the Data Management and Quality Assurance/Quality Control (QA/QC) Process Used to Edit the State Compliance Monitoring Datasets document to include additional steps used during SYR 3 to manage the dataset. While the SYR 2 document was an internal document, part or all of the SYR 3 QA/QC will be made public.

**Deliverables:** For work planning purposes, up to 3 additional iterations of the SYR occurrence document may be required: 2 drafts and 1 final draft.

### **Task 5: Data Posting**

Six year review data collected through an ICR process are critical to the SYR3 process and the development of national occurrence estimates. Providing the SYR 3 ICR data online to the public is important for transparency purposes. The contractor shall provide support for the posting of these data [referring to SYR3 ICR data] to a public web site and for EPA records. As part of this support, the contractor shall provide the chemical SYR 3 ICR data to the WACOR in an electronic format (i.e. via CDs, from FTP site) to be specified in technical direction. The data posting effort will be coordinated with the posting of the Microbial and Disinfection Byproduct data under WA 4-16. Initial considerations related to the effort needed to post all the data were identified in tasks under WA 3-16.

**Deliverables:** SYR 3 ICR Chemical, Radiological Dataset.

#### G. SCHEDULE OF DELIVERABLES:

Task	Deliverable	Schedule/Due to EPA	No of Copies/Medium
0	Work Plan, monthly progress reports	Per contract requirements	Per contract requirements
1	Draft SYR occurrence document.	2 weeks after written technical from WACOR	Electronic copy
	Final SYR occurrence document.	2 weeks after written technical from WACOR. The final document shall also be 508 compliant.	Electronic copy.
2	Issue analyses method outline	1 week after receiving written technical direction from the EPA WACOR	Electronic copy
	Draft/final analyses and references	2 weeks after receiving written technical direction from the EPA WACOR to produce draft/final papers. The final document shall also be 508 compliant.	Electronic copy.
3	Up to 3 issue papers and/or three technical analyses as requested.	10 days after receiving written technical direction from EPA WACOR. The final document shall also be 508 compliant.	Electronic copy.
4	Draft Data Management Document	2 weeks after receiving written technical direction from the EPA WACOR to produce draft document	Electronic copy.
	Draft/Final Data Management Document	2 weeks after receiving written technical direction from the EPA WACOR to produce draft document. The final document shall also be 508 compliant.	Electronic copy.
5	SYR 3 Data set for web posting and for EPA records	2 weeks after receiving written technical direction from the EPA WACOR	Electronic copy.

#### H. LEVEL OF EFFORT ESTIMATES:

EPA estimates that 400 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

#### **J. TRAVEL:**

For work planning purposes, the contractor should assume 2 one day trips to Washington, DC, during the period of performance. The purpose of this trip will be to coordinate with EPA staff regarding this work assignment. The contractor's travel shall be in accordance with EPA travel requirements and authorized in advance by the EPA Contract-level COR.

**K. SPECIAL REPORTING REQUIREMENTS:** As outlined in this Performance Work Statement (PWS).

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements. The performance standards, incentives and disincentives established in the Quality Assurance Surveillance Plan of Contract EP-C-12-023 apply to this work assignment.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-05				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Implementation of UCMR				
Contractor Cadmus Group, Inc., The					Specify Section and paragraph of Contract SOW Section 2.0					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   05/01/2016   To   04/30/2017				
Comments: Work Assignment Issuance.   Work shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
11/01/2012 To 04/30/2017										
This Action:						3,800				
Total:						3,800				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Brenda Parris						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-569-7961				
						FAX Number:				
Project Officer Name   Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-05**

**A. TITLE:** Support for Rule Development and Implementation of the Unregulated Contaminant Monitoring Rule (UCMR)

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Brenda Parris  
U.S. Environmental Protection Agency  
Office of Ground Water and Drinking Water  
Standards and Risk Management Division/Technical Support Center  
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Voice: (513) 569-7961  
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**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Melissa Simic  
U.S. Environmental Protection Agency  
Office of Ground Water and Drinking Water  
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Fax: (513) 569-7191

**D. BACKGROUND:**

The 1996 Safe Drinking Water Act Amendments require EPA establish criteria for a monitoring program and publish a list of not more than 30 unregulated contaminants, for which public water systems (PWS) will monitor. The monitoring program will provide a national basis for the location, concentration, and related information regarding the occurrence of these contaminants in public drinking water. EPA published the first Unregulated Contaminant Monitoring Rule (UCMR 1) in 1999, the second (UCMR 2) in 2007, and the third (UCMR 3) in 2012. EPA published the proposal for the fourth (UCMR 4) on December 11, 2015, and should publish the final in late 2016/early 2017.

The UCMR program divides contaminants into lists based on the availability of analytical methods and the analytes selected. The UCMR program also includes specific instructions on sampling locations, and coordination of rule implementation between States, EPA and PWS.

EPA uses the unregulated contaminant monitoring data in determining which contaminants pose the greatest risks to human health and, if necessary, setting priorities for their regulation. Conversely, contaminants that potentially pose risks to human health but are not found in drinking water

supplies may be removed from consideration for regulation under the Safe Drinking Water Act if this monitoring program indicates that they do not occur at significant levels.

#### **E. QUALITY ASSURANCE:**

No tasks in this work assignment require the use of **primary** data and Tasks 1 and 2 in this work assignment require the use of **secondary** data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under tasks 1 and 2 of WA 0-05, consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract Level Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-05, 1-05, 2-05 and 3-05. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under tasks 1 and 2 of WA 0-05. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP) accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

**Deliverables:** Work plan, monthly progress and financial reports submitted in accordance with contract requirements.

##### **Task 1: Rulemaking Support**

###### **Task 1.1 Technical Analyses**

The contractor shall provide technical analyses and documentation for Rapid Response Requests related to UCMR at the written direction of the EPA WACOR. The analysis may be performed in support of the statistical design, determination of occurrence and health related data in support of inclusion of contaminants in UCMR, laboratory approval, response to comments, and projecting costs. For costing purposes the contractor should assume to include collecting additional occurrence and health data for up to 3 potential contaminants already identified in the proposal for the fourth UCMR. This additional information may include even more occurrence information, usage date, health data research, and more recent journal article searches for up to 3 potential contaminants as



1-3 page white papers compiled into the Compendium to the UCMR. The contractor shall also provide a technical analyses and documentation for the cost benefit and paperwork reduction sections, and the Information Collection Request requested by the EPA WACOR in written technical direction.

**Deliverables:** Rapid response requests, laboratory approval, contaminant white papers for Compendium, cost benefit and paperwork reduction sections.

#### **Task 1.2. Federal Register Support**

The contractor shall provide support to the UCMR workgroup including participating with Children's Health, Environmental Justice and the Tribal component. The support shall include participation by phone or in person for UCMR regulatory meetings and conference calls as technical experts; preparing meeting documents and summaries; conducting literature searches; and drafting several brief technical reviews and what-if analysis including the analytical blueprint. To support the final rule and final package, the contractor shall finalize review of all public comments, provide materials needed to assist with the Response to Comments Document, prepare cost estimates, and review and update other supporting documents for continuity as necessary. This will require a high level of expertise.

The final UCMR 4 should be published by January 2017; with one stakeholder meeting March/April 2017. This stakeholder meeting will also be broadcasted as a webinar. The EPA WACOR will provide more details through written technical direction. In addition to preparing meeting summaries, the contractor shall provide pre-meeting support such as preparing and distributing meeting materials and agendas. The contractor shall review and evaluate all notes and presentations delivered to EPA to ensure accuracy and technical soundness. For planning purposes, the Contractor shall assume one trip to EPA's Headquarters, Washington, DC for the stakeholder meeting.

While EPA does not anticipate the contractor's support to any individual meeting or other event (conference, workshop, symposium, retreat, seminar or training) incurring \$20,000 in cost, the contractor shall immediately notify the EPA Contracting Officer, Contract-level Contracting Officer's Representative and Work Assignment Contracting Officer's Representative if it anticipates support to such event reaching this cost. Event expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

Additionally, to prepare for the development of the proposed rule and package, the contractor shall provide materials needed for rule development; review all documents for continuity, update the Information Collection Request, Regulatory Impact Analysis, Communication Strategy and update documents as necessary. This will require an extensive expertise in the rulemaking process.

**Deliverables:** Workgroup materials including the analytical blueprint, stakeholder meeting materials and presentations, rule development materials, Response to Comment Document, Communication Strategy, Regulatory Impact Analysis, Information Collection Request.

### **Task 1.3. Minimum Reporting Levels (MRL) and Lowest Concentration Minimum Reporting Levels (LCMRL) Support**

An important part of the rule development is the determination of MRLs for contaminants considered for UCMR monitoring. This requires the contractor subcontract with multiple analytical laboratories that can perform LCMRL analyses. For the purposes of estimating costs, the contractor should assume that it will be necessary to subcontract with three to five laboratories to perform LCMRL analyses for 3 methods containing up to 10 analytes each. In addition, the contractor shall provide technical support in the evaluation of the LCMRL calculator, drafting a summary of the data, and any support needed to make improvements, if needed.

**Deliverables:** LCMRL studies data sets.

### **Task 2.0 Guidance/Program Support for Implementation**

The contractor shall support EPA in providing technical analyses, what-if analyses, and documentation to implement UCMR. The contractor shall finalize the National Contaminant Occurrence Database (NCOD) Document, quarterly. Additionally, the contractor shall communicate with stakeholders, and draft up to six fact sheets, and five questions and answers on hot-topic items; as directed by the EPA WACOR.

**Deliverables:** Implementation technical and what-if analysis, NCOD Document, Fact Sheets and Question and Answers.

### **G. SCHEDULE OF DELIVERABLES:**

The contractor shall deliver all documents in OGWDW software compatible electronic format. For finals, the contractor shall deliver one electronic copy (disk, CD or e-mail, word processing and PDF for posting to Web). All due dates below are calendar days, weeks and months.

Unless otherwise specified in technical direction, any deliverables produced under this work assignment shall be delivered using the following software: current Agency MS Office Applications and CD-ROM, DVD or CD-RW media. In addition, when the Section 508 Requirements versions specified in the table below are needed, the MS Office version should be delivered concurrently. The WACOR shall have the option of specifying or approving alternative software and/or conventions for deliverables produced under this contract.

Additionally, unless otherwise specified in technical direction, any deliverables produced under this contract shall be delivered using the current Agency MS Office Applications, as well as, deliverables designed for the public or EPA website shall meet EPA's policies, procedures and standards (e.g., Communication Stylebook <http://www2.epa.gov/stylebook>; Correspondence Manual <http://workplace.epa.gov/manual/index.html>; Section 508 Requirements <http://www.epa.gov/accessibility/>).

Task	Deliverable	Due to EPA	No of Copies/Medium
0	Work plan	Per contract	Via email
0	Monthly progress and financial reports	Per contract	Via email

1.1	Rapid response requests – technical analyses	Per timeframe identified in each written technical direction	One copy via email
1.1	Contaminant excel summary	Within 5-days of EPA’s technical direction to start	One copy via email
1.1	Contaminant white papers for Compendium	Within 10-days of EPA’s technical direction to start	One 508 copy via email
1.1	Cost benefit and paperwork reduction sections.	Within 14-days of EPA’s technical direction to start	One 508 copy via email
1.1	Laboratory Approval – technical analysis	Within 10-days of EPA’s technical direction to start	One 508 copy via email
1.2	Workgroup materials including the analytical blueprint	Within 7-days of EPA’s technical direction to start	One copy via email
1.2	Meeting summaries	Within 2-days of meeting	One 508 copy via email
1.2	Presentations for stakeholder meeting	Within 14-days of EPA’s technical direction to start	One copy via email; possibly hard copy
1.2	Arrange and coordinate stakeholder meeting	Within 14-days of EPA’s technical direction to start	One copy via email; possibly hard copy
1.2	Rule development materials	Within 14-days of EPA’s technical direction to start	One 508 copy via email
1.2	Communication Strategy	Within 14-days of EPA’s technical direction to start	One copy via email
1.2	Regulatory Impact Analysis	Within 30-days of EPA’s technical direction to start	One 508 copy via email
1.2	Information Collection Request	Within 14-days of EPA’s technical direction to start	One 508 copy via email
1.2	Response to Comment Document	Within 14-days of EPA’s technical direction to start	One 508 copy via email
1.3	LCMRL Studies Data Sets	Within 45-days of EPA’s technical direction to start	One copy via email
2.0	Implementation technical and what-if analysis	Within 10-days of EPA’s technical direction to start	One copy via email

2.0	NCOD Document	Within 5-days of EPA's technical direction to start	One 508 copy via email
2.0	Fact Sheets or Question and Answers	Within 14-days of EPA's technical direction to start	One 508 copy via email

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 3,800 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

#### **J. TRAVEL:**

The contractor shall assume travel will be required in support of this work effort. For planning purposes, the Contractor shall assume travel for two people to EPA's Headquarters, Washington, DC for the stakeholder meeting mentioned in Task 1.2. The EPA WACOR will provide written technical direction. Prior to travel, the contractor shall receive authorization from the Contract-level Contracting Officer's Representative.

#### **K. SPECIAL REPORTING REQUIREMENTS:**

The contractor shall report any urgent issues to the WACOR via phone or email.

#### **L. QUALITY ASSURANCE SURVEILLANCE PLAN:**

Per contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-06			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-12-023		Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4		Title of Work Assignment/SF Site Name Contaminant Candidate List 4					
Contractor Cadmus Group, Inc., The				Specify Section and paragraph of Contract SOW Sections 1.0 and 2.0					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance  From   05/01/2016   To   04/30/2017					
Comments: Work Assignment Issuance. Work shall not commence until May 1, 2016.									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund           <span>Accounting and Appropriations Data</span> <input checked="" type="checkbox"/> Non-Superfund         </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
11/01/2012 To 04/30/2017				0					
This Action:				4,050					
Total:				4,050					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name   Clifton Townsend  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-1576 FAX Number:			
Project Officer Name   Ronald Coleman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8491 FAX Number:			
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name   Noelle Mills  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:			

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-06**

**A. TITLE:** Support for the Contaminant Candidate List 4 Chemical Selection

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Clifton Townsend  
US EPA OW/OGWDW/SRMD  
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**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Meredith Russell  
US EPA OW/OGWDW/SRMD  
MC-4607M  
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Phone: (202) 564-0814  
Fax: (202) 564-3760  
E-mail: Russell.meredith@epa.gov

**D. BACKGROUND:**

The Safe Drinking Water Act (SDWA) as amended in 1996 requires EPA to publish a list of contaminants that are known or anticipated to occur in public water systems, and which may require regulation under the SDWA known as the Drinking Water Contaminant Candidate List, or CCL. (Section 1412(b)(1)).

EPA published the final third drinking water Contaminant Candidate List (CCL 3) in the Federal Register on October 8, 2009. In developing the CCL 3, EPA implemented an improved process from that which was used for previous CCLs. The CCL 3 process was based on substantial expert input and recommendations from the National Academy of Science's National Research Council (NRC) and National Drinking Water Advisory Council (NDWAC). EPA used a multi-step process to identify contaminants for inclusion on the CCL 3. The first step involved identifying a broad universe of approximately 7,500 potential drinking water contaminants. The Agency then applied screening criteria to identify a preliminary CCL of almost 600 contaminants based on a contaminant's potential to occur in

public water systems and the potential for public health concern. These chemicals were then further evaluated using a classification approach and expert judgment to identify the CCL 3.

On May 8, 2012, EPA requested public nominations of contaminants to be considered for CCL 4 and supporting information that was made available since the third CCL (CCL 3) or was not considered in CCL 3 that shows the nominated contaminant may have an adverse health effect on people and the contaminant occurs or is likely to occur in public water systems. The nominations period ended on June 22, 2012. Evaluation of the nominated contaminants was mostly completed under contract EP-07-022 (WA 5-10) and contract EP-C-12-023 (WA 0-06 and WA 1-06). The Draft fourth Contaminant Candidate List (Draft CCL 4) was published on February 4, 2015, for public comment. This work assignment will continue efforts to support EPA's comment response process and focus on updating and finalizing products (documents/ data compilations) developed under previous work assignments in preparation for the publication of the Final fourth Contaminant Candidate List (Final CCL 4).

The contractor shall produce deliverables according to the statement of work below. Upon receipt of comments from the EPA WACOR, the contractor shall revise the draft deliverables into a finalized product(s) to support and document the CCL 4.

#### **E. QUALITY ASSURANCE:**

Tasks 2,3,4,5, and 6 in this work assignment requires the use of **secondary** data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed and approved under task 0 of WA 0-06. EPA has determined that this approved SQAPP is appropriate for the tasks outlined in this Performance Work Statement. Based on this determination, the contractor is not required to modify the approved SQAPP for this work assignment. Table E-1 is a crosswalk of tasks in the approved that satisfies QA requirements for tasks in WA 4-06.

**Table E-1 Crosswalk between approved SQAPP and WA 4-06**

<b>Tasks Described in SQAPP</b>	<b>Tasks in WA 4-06</b>
<b>2</b>	<b>2</b>
<b>4</b>	<b>3</b>
<b>5</b>	<b>4, 5, 6</b>

## **F. TASK DESCRIPTION:**

### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-06, 1-06, 2-06, and 3-06. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under task(s) 0 of WA 0-06. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

**Deliverables:** Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

### **Task 1.0: Meeting Support for the CCL**

Based on written technical direction from the EPA WACOR, the contractor shall attend from 1-5 (teleconference) meetings of the CCL 4 team, or other meetings related to the CCL process. The contractor shall provide 1-2 technical experts on the CCL process and drinking water chemical exposure to provide input in the meeting and in meeting preparation. The contractor shall provide for the taking of meeting notes and shall provide a copy to the WACOR within 5 working days of the conclusion of the meeting.

EPA projects that the total cost of each meeting, including the contractor's labor and other direct costs and the Governments costs, will be under the agency's \$20,000 requirement for senior management approval.

**Deliverables:** Meeting Notes



## **Task 2.0: Data Collection and Evaluation of Drinking Water Data Sources for CCL 4**

Under the previous Cadmus Contract EP-C-07-022, WA 4-10, 5-10, and current EP-C-12-023 WA 0-06, and 1-06, WA 2-06, and WA 3-06, the contractor collected updated data to be utilized in CCL 4 from an approved list of data sources, compiled summary spreadsheets of data from each data source, input data into the CCL 4 data compilation, and submitted drafts of the data compilation to EPA. Based upon the WACOR's written technical direction, the contractor shall potentially collect data from new data sources (such as those identified by public comments or from the Science Advisory Board) and provide summary spread sheets for the new data sources. At the direction of the EPA WACOR, the contractor shall continue to update and finalize the CCL 4 data compilation and shall deliver the CCL 4 data compilation to the EPA WACOR prior to or concurrent with the publication of the Final CCL 4 Federal Register Notice. The data compilation shall meet OGWDW and EPA data warehouse standards.

Deliverables: Draft and Final summary spread sheets for any new compiled data sources  
Draft(s) and Final data compilation containing data for the Final CCL 4

## **Task 3.0: Technical Analyses, Data Evaluation and Summaries of Other CCL contaminants**

The contractor shall conduct technical analyses related to the CCL and provide technical and analytical writing related to the analyses. Under previous WAs, the contractor analyzed data for other CCL 3 contaminants (that were not nominated) that were carried forward to the Draft CCL 4 and provided draft Contaminant Information Sheets of those (non-nominated) contaminants. Based on the EPA WACOR's written direction, the contractor shall update those Contaminant Information Sheets (or other data summaries) based on new data received (such as those received from public comments). Under the previous WA, the contractor also submitted summary statistics (flag lists) about the contaminants in the Universe, PCCL, and Draft CCL 4, such as information on the number of contaminants in various groups (such as pesticides, emerging contaminants, pharmaceuticals, disinfection byproducts, microbes, chemicals used in commerce such as industrial chemicals, and any other groups as necessary). At the written direction of the WACOR, the contractor shall update and finalize those flag lists (summary statistics) to reflect any changes from the Draft to the Final CCL 4.

Deliverables: Draft and Final Contaminant Information Sheets for nominated and carried forward contaminants (508 compliant)

Draft and Final summary statistics (flag lists) of Final CCL 4 contaminants

**Task 4.0: Update Supporting Documentation for the Final CCL 4** Four supporting documents for the Draft CCL 4 were developed previously: "Summary of Nominations for the Fourth CCL"; "Data Sources for the CCL 4"; "Screening Document for the Draft PCCL 4 Nominated Contaminants"; and "Contaminant Information Sheets for the Draft Fourth Preliminary Contaminant Candidate List (PCCL 4) Nominated Contaminants". Based on written technical direction from the EPA WACOR, the contractor shall finalize these documents based on any changes made from the Draft CCL 4 to the Final CCL 4 and make these documents 508 compliant. These products shall adhere to the OGWDW standard operating procedures

for printed or web related materials. The contractor shall provide support for developing briefing materials and other issue papers related to the CCL 4, based upon written technical direction from the EPA WACOR.

Deliverables: Draft(s) and Final supporting documents for the Final CCL 4 (508 compliant)

#### **Task 5.0: Support for the CCL 4 Comment Response Process and Updating and Maintaining the Comment Response Database**

##### 5.1 Maintain the comment response database

The contractor shall maintain and update the database and its supporting documentation. The contractor shall minimize the down-time of the web link and notify the EPA WACOR when the down-time does occur. The contractor shall locate comments by their subject code, track the number of comments under each subject code and check responses to ensure all comments have been responded to. Upon receipt of written technical direction from the EPA WACOR, the contractor shall query the database and provide the EPA WACOR with the approximate number and nature of comments received.

The contractor shall sort comments by subject category code for distribution to EPA staff responsible for responding to comments. After EPA review and approval of the comment response database, the contractor shall provide a CD-ROM (or downloadable copy) of the final database to the EPA WACOR.

##### 5.2 Comment Response Document

EPA will write responses to each comment directly into the web-based database. The contractor shall merge the data into one file as a draft comment response document that includes all public comments and EPA responses. The contractor shall provide electronic copies of this file to the WACOR to review. After the EPA WACOR reviews and has provided written comments on the draft comment-response document, the contractor shall prepare the final comment response document for the OW docket record.

Deliverables: Draft and Final Comment Response Database  
Draft and Final Comment response document (508 compliant)

#### **Task 6.0: Analysis of Data from public comments**

The contractor shall support EPA's evaluation of data submitted during the public comment period. Under WA 3-06 the contractor compiled a summary (table or spreadsheets) of data submitted during the public comments and compared this data to data EPA has previously collected to determine whether the data provided is new. If new data was submitted, the contractor shall evaluate and documented whether the data met the assessment factors (developed under CCL 3) to be considered in the CCL process (i.e., is the data relevant, is the data complete (including meeting quality requirements), and is the data redundant with any other more comprehensive data sources), and evaluated whether the data could be used for screening and scoring based on the data hierarchies developed under CCL 3.

This is to ensure that the best available data is used in the CCL 4 evaluation process. At the written direction of the EPA WACOR, the contractor shall finalize this analysis or shall conduct new analyses to evaluate information submitted from SAB or public comments and use the new data to re-screen and re-score the contaminants, if applicable, and document any changes.

If changes are made from the Draft CCL 4 to the Final CCL 4 as a result of public comments (or comments from the Science Advisory Board), the contractor shall also, at the direction of the EPA WACOR provide a spreadsheet(s) showing changes between the Draft and Final CCL 4 Universe, PCCL, and CCL. The contractor shall also, at the written direction of the WACOR, provide written descriptions/ rationale for such changes.

Deliverables: Draft(s) of summary spreadsheet(s) of data submitted during public comments

Draft(s) summaries of changes between the Draft and Final CCL 4 Universe, PCCL, and CCL

#### **G. SCHEDULE OF DELIVERABLES:**

The contractor shall ensure that all 508 compliant documents developed in all tasks outlined in this work assignment will align with EPA's 508 compliance checks (keywords, titles, tables, tags, etc.). The contractor is responsible for maintaining and utilizing the same version of Adobe as the EPA for purposes of developing and maintaining 508 compliant documents. To the extent practical, documents which are developed for this work assignment, and are to be 508 compliant should be designed to be such from their inception, minimizing the effort for conversion and maximizing 508 compliance quality assurance.

Task	Deliverable	Due to EPA	No of Copies/ Medium
0- Work Plan and Monthly Progress Reports	Work plan and monthly progress and financial reports	Per Contract	Per Contract
1 -General Meeting Support for the CCL	Meeting Notes	Within 5 days of the conclusion of the meeting	Electronic
2 -Data Collection and Evaluation of Potential Drinking Water Data Sources for CCL 4	*Summary spread sheets of any new compiled data sources Draft(s) Final	- TBD in written technical direction from the EPA WACOR - 10 days after receipt of written comments from the EPA WACOR	Electronic

	*Draft(s) and Final data compilation containing data for the Final CCL 4	-TBD in written technical direction from the EPA WACOR -2 weeks after receipt of written comments from the EPA WACOR	CD and electronically
3- Technical Analyses, Data Evaluation, and Summaries of Other CCL Contaminants	<p>*Data summaries (Contaminant Information Sheets) for other CCL 3 contaminants -Draft(s)</p> <p>*Summary statistics of Final CCL 4 contaminants -Draft - Final</p>	<p>-TBD in written technical direction from the EPA WACOR -10 days after receipt of written comments from the EPA WACOR</p> <p>- TBD in written technical direction from the EPA WACOR - 7 days after receipt of written comments from the EPA WACOR</p>	<p>Electronic</p> <p>Electronic</p>
4- Update Supporting Documentation for the Final CCL 4	*Draft(s) and Final supporting documents for the Final CCL 4	-TBD in written technical direction from the EPA WACOR -7 days after receipt of written comments from the EPA WACOR	Electronic – All final Supporting documents shall be 508 compliant
5- Support for the CCL 4 Comment Response Process and Updating and Maintaining the Comment Response Database	*Draft and Final Comment response document (508 compliant)	-TBD in written technical direction from the EPA WACOR -10 days after receipt of written comments from the EPA WACOR	Electronic (Final Comment Response Document shall be 508 compliant)
6- Analysis of Data From Public Comments	<p>*Draft(s) summary spreadsheets of data submitted during public comments</p> <p>*Draft(s) summaries of changes between the Draft and Final CCL 4</p>	<p>- TBD in written technical direction from the EPA WACOR</p> <p>-TBD in written technical direction from the EPA WACOR</p>	<p>Electronic</p> <p>Electronic</p>

	Universe, PCCL, and CCL		
* indicates the deliverable requires quality assurance subject to a QAPP			

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 4050 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** No travel is anticipated for the performance period.

**K. SPECIAL REPORTING REQUIREMENTS:** The contractor shall discuss the progress of the Work Assignment and any issues in periodic teleconference calls, approximately on a bi-weekly basis (every other week) with the WACOR. The EPA WACOR will schedule these teleconference calls.

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-08				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Lead and Copper Rule				
Contractor Cadmus Group, Inc., The					Specify Section and paragraph of Contract SOW Sections 1.2, 2.4.1, 1.10.4					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   05/01/2016   To   04/30/2017				
Comments: Initial Work Assignment Issuance.   Performance shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
11/01/2012 To 04/30/2017										
This Action:						2,400				
Total:						2,400				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Erik Helm						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-566-1049				
						FAX Number:				
Project Officer Name   Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-08**

**A. TITLE:** Support for Lead and Copper Rule (LCR) Proposed Long-Term Regulatory Revisions

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Erik C. Helm  
US EPA, Room 2227N  
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e-mail: [helm.erik@epa.gov](mailto:helm.erik@epa.gov)

**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Lameka Smith  
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Fax: (202) 564-3760  
e-mail: [smith.lameka@epa.gov](mailto:smith.lameka@epa.gov)

**D. BACKGROUND:**

The Safe Drinking Water Act (SDWA), as amended in 1996, directs EPA to review existing National Primary Drinking Water Regulations (NPDWRs) at least once every six years, and revise them if appropriate. The Six Year Review of existing drinking water regulations considers key elements in the areas of health effects, technology, occurrence, and analytical capacity in reviewing existing drinking water regulations and making decisions regarding appropriateness of regulatory revision.

EPA is currently in the process of evaluating potential changes to the existing lead and copper rule. These regulatory changes may consist of modifications to the tiering criteria for lead and copper sampling sites, changes to requirements for lead service line replacement, changes and/or additions to existing corrosion control treatments, modifications to existing water quality parameters, and public education requirements.

The purpose of this work assignment is to provide support to EPA in assessing the cost and benefits of the lead and copper rule revision process.

**E. QUALITY ASSURANCE:**

Tasks 1, 2 and 4 in this work assignment require the use of secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) submitted and approved under task zero of WA 0-08. EPA has determined that this approved SQAPP is appropriate for the tasks outlined in this Performance Work Statement. Based on this determination, the contractor is not required to modify the approved SQAPP for this action.

**F. TASK DESCRIPTION:**

**Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 1-08, 2-08, and 3-08. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under WA 0-08. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

**Deliverables:** Work plan and monthly progress and financial reports submitted in accordance with contract requirements.



## **Task 1: Cost and Benefit Analysis Model – Revised with additional detail**

The contractor shall continue to assess what cost and benefit components will need to be valued based on the results of the NDWAC's draft and final recommendations to EPA on how the LCR should be modified under this rulemaking process. EPA has provided the draft regulatory requirements to the contractor. Under WA 3-08 an initial Excel spreadsheet was developed which documented the cost and benefit variables previously costed as part of the preparation for the LCR long-term revisions, what variables require the development of additional regulatory language in order to accurately develop costs, which variables require sensitivity and/or probabilistic simulation analysis, and plans for developing missing variable data. Updates to this spreadsheet will be due based on WACOR written technical direction. A number of additional iterations of the product may be required based on changing regulatory requirements and EPA comments. For planning purposes, assume six iterations for both the cost and benefits. Each revision of the document will be due one week after the contractor receives comments from EPA unless modified by written technical direction.

As part of model development, the contractor shall be required to develop cost information based on those items identified in the "initial assessment" Excel spreadsheet. The plan for developing such cost components will need to be approved by the EPA in technical direction.

In addition, the contractor shall be required to develop benefits information based on those items identified in the "initial assessment" Excel spreadsheet. The plan for developing such benefit components will need to be approved by the EPA in technical direction.

Given the new LCR rule structure and the cost and benefits research conducted as part of Task 1 the contractor at the written technical direction of the EPA WACOR shall develop and cost-benefit modeling system. Considering an efficient mix between migration cost and modeling efficiency, the contractor shall migrate to a more flexible and powerful working environment both the cost and benefits models which underlie the Economic Analysis associated with the LCR LTR. The goals of the cost model migration shall be to:

- Be entirely self-contained and delivered to EPA at the promulgation of the Final LCR LTR
- Be flexible enough to run different rule revision scenarios for cost comparison of rule revision options with minimal lead time
- Anticipate, to the extent practical, future revisions to the LCR and be immediately useable or with minimal effort adaptable to those future revisions
- Relate to the benefits model
- Be easily updated with baseline data, such as SDWIS data.

The goals of the benefits model migration shall be to:

- Be entirely self-contained and delivered to EPA at the promulgation of the Final LCR LTR
- Be flexible enough to run different rule revision scenarios for benefit comparison of rule revision options with minimal lead time

- Anticipate, to the extent practical, future revisions to the LCR and be immediately useable or with minimal effort adaptable to those future revisions
- Relate to the cost model
- Consider, to the extent practical, the most current science and most current EPA practice regarding the child and adult health effects of lead.
- Be easily updated with new human health and occurrence/exposure data

Deliverables: Updated cost and benefit assessment spreadsheet, collection of additional cost and benefit component data, and the development of cost and benefit models.

## **Task 2: Development of the Draft Technical Support Document (TSD) for the Economic Costs, Impacts, and Benefits**

Under this task, the contractor shall support EPA's development of a draft Economic Analysis TSD. This report will revise the chapters of the Economic Analysis TSD written under WA 1-08 and 2-08. The chapter structure of the TSD shall remain the same as that developed in WA 2-08. The chapters of the economic analysis TSD will be:

- Executive Summary
- Need for the Rule
- Consideration of Regulatory Alternatives
- Baseline Analysis
- Health Effects
- Benefits Analysis
- Economic Impact and Cost Analysis
- Comparison of Benefits and Costs

### **Administrative Requirements.**

The Administration Requirements chapter includes the Regulatory Flexibility Act (RFA) Analysis, the Unfunded Mandates Reform Act (UMRA) Analysis, and the Executive Order Analyses (E.O. 12866, 13132, 13175, 13045, 13211, 12898, and 13158).

The TSD will contain the assessment of the three to five proposed rule options which are to be determined through the EPA Office of Water proposed rule process. These primary options will be defined by written Technical Direction.

The draft TSD report chapters shall be provided to the EPA WACOR for an initial review.

Once the EPA WACOR completes the initial review of the draft TSD report chapters and provides revisions and/or comments to the contractor, the contractor shall incorporate the changes into the draft TSD report chapters.

Under this task, the draft Economic Analysis TSD report chapters may also need to be revised further in response to public comments, changes in the technical data, comments from OW management, agency workgroup members, and OMB, as well as changes to the proposed rule regulatory options and/or technology efficacy results. These changes are expected to occur in several waves as the proposed rule moves through the Agency and Inter-agency review process. All changes will be given to the contractors by written Technical Direction. After each set of significant revisions initiated by technical direction, the contractor shall supply that portion or chapter of the TSD to the EPA WACOR for further review.

The Final Economic Analysis TSD report will be due at the time of the Administrator's Signature or the Proposed Lead and Copper Rule, currently scheduled for November 2017, which is after the end of this work assignment's period of performance. Therefore, the contractor shall prepare final draft versions of the Economic Analysis TSD report chapters that have been drafted and modified during the period of performance, incorporating the EPA WACOR's comments at the end of the period of performance.

Deliverables: Draft TSD chapters and revisions to the TSD chapters at technical direction of EPA WACOR.

### **Task 3: Note taking at EPA working group meetings**

The contractor shall provide support for the Lead and Copper Rule, Long-term Revisions consultation with EPA's internal working group by producing written notes for meetings, in a format directed by the WACOR in technical direction. The notes shall be a summary level document which will include, at a minimum, a list of meeting participants; major issues discussed; record of decisions made; and action items. The notes are due not more than five working days after the EPA working group meeting. For planning purposes, the contractor should assume a maximum of 10 EPA working group meetings during this period of performance. These notes are for internal use only and do not have to be 508 compliant.

Deliverables: Notes from EPA working group meetings.

### **Task 4: Issue Papers and Technical Support**

The contractor shall develop issue papers and technical analyses as identified through written technical direction by the EPA WACOR. EPA anticipates that some issues may become high priority during this review process and may require analytical support for internal Agency decision-making processes. Upon direction from the EPA WACOR, the contractor shall collect summary information on particular issues (e.g., manufacturing production practices), risk assessment background and status information, and perform preliminary cost-benefit analyses.

Deliverables: For work planning purposes, up to 5 analyses may be required. The contractor shall assume three iterations of each document: 2 drafts and 1 final.

## G. SCHEDULE OF DELIVERABLES:

**508 compliance:** The contractor shall ensure that all 508 compliant documents developed in this task and in all tasks outlined in this work assignment will align with EPA's 508 compliance checks (keywords, titles, tables, tags, etc.). The contractor is responsible for maintaining and utilizing the same version of Adobe as the EPA for purposes of developing and maintaining 508 compliant documents. To the extent practical, documents which are developed for this work assignment, and are to be 508 compliant should be designed to be such from their inception, minimizing the effort for conversion and maximizing 508 compliance quality assurance.

TASK	TASK DESCRIPTION	DEADLINES
0	Work plan and monthly progress reports	Per contract
1	Updates to Cost and Benefit tracking spreadsheet	As specified in written technical direction from the EPA WACOR.
1	Development of Cost and Benefit data sources and data	As specified in written technical direction from EPA WACOR.
1	Cost and Benefit Model Development	As specified in written technical direction from the EPA WACOR.
2	Initial update of technical support document chapters	As specified in written technical direction from the EPA WACOR.
2	Additional revisions to technical support document chapters	As specified in written technical direction from the EPA WACOR.
3	Note taking at EPA internal workgroup meetings	As specified in written technical direction from the EPA WACOR.
4	Additional issue papers and support work	As specified in written technical direction from the EPA WACOR.

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 2,400 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

#### **J. TRAVEL:**

For work planning purposes, the contractor should assume 4 one day trips to Washington, DC, during the period of performance. The purpose of this trip will be to coordinate with EPA staff regarding this work assignment. The contractor's travel shall be in accordance with EPA travel requirements and authorized in advance by the EPA Contract-level Contracting Officer's Representative.

#### **K. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-09	
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:	
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017 Base                      Option Period Number    4			Title of Work Assignment/SF Site Name Protective Action Guide for DW	
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW Sections 1.6, 1.61, 2.1, 2.12 and 5.1		
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From 05/01/2016 To 04/30/2017		
Comments: Initial Work Assignment Issuance							
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund           Accounting and Appropriations Data           <input checked="" type="checkbox"/> Non-Superfund         </div>							
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.							
SFO <input type="checkbox"/> (Max 2)							
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)    (Cents)    Site/Project (Max 8)    Cost Org/Code
1							
2							
3							
4							
5							
Authorized Work Assignment Ceiling							
Contract Period:		Cost/Fee:		LOE:			
11/01/2012 To 04/30/2017				0			
This Action:				750			
Total:				750			
Work Plan / Cost Estimate Approvals							
Contractor WP Dated:				Cost/Fee		LOE:	
Cumulative Approved:				Cost/Fee		LOE:	
Work Assignment Manager Name Samuel Hernandez  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-1735 FAX Number:	
Project Officer Name Ronald Coleman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8491 FAX Number:	
Other Agency Official Name D'Andre Boulden  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Sandra Stargardt-Licis  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2006 FAX Number:	

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-09**

**A. TITLE: Scope of Protective Action Guides for Drinking Water**

**B. PERIOD OF PERFORMANCE:** Effective Date through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

**Samuel Hernandez  
MC: 4607M  
1200 Pennsylvania Ave., NW  
Washington, DC 20460  
202-564-1735**

**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

**Jerry Ellis  
MC: 4607M  
1200 Pennsylvania Ave., NW  
Washington, DC 20460  
202-564-2766**

**D. BACKGROUND:**

The U.S. Environmental Protection Agency (EPA) is in the process of developing a Manual to assist public officials in planning for emergency response to radiological incidents. A radiological incident is an event or a series of events, deliberate or accidental, leading to the release or potential release into the environment of radioactive materials in sufficient quantity to warrant consideration of protective actions. The Manual will provide radiological protection criteria for application to all incidents that would require consideration of protective actions.

During an incident with an uncontrolled source of radiation, protection of the public from unnecessary exposure to radiation may require some form of intervention that will disrupt normal living. Such intervention is termed a protective action. Examples of protective actions include: evacuating an area; sheltering-in-place within a building or protective structure; administering potassium iodide (KI) as a supplemental action; acquiring an alternate source of drinking water; interdiction of food/milk.

The Manual will provide recommended numerical protective action guides (PAGs) for the principal protective actions available to public officials during a radiological incident. A PAG is defined as the projected dose to an individual from a release of radioactive material at which a specific protective action to reduce or avoid that dose is recommended. PAGs do not establish an acceptable level of risk for normal, nonemergency conditions, nor do they represent the boundary between safe and unsafe conditions. The PAGs are not legally binding regulations or standards and do not supersede any environmental laws.

The agency issued a draft PAGs manual on April 2013, and requested comments on the proposed actions. A final manual is expected to be issued by 2016.

#### **E. QUALITY ASSURANCE:**

Task(s) 1, 2, & 3 in this work assignment requires the use of **secondary** data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under task(s) zero of WA 0-09, EPA has determined that this approved SQAPP is appropriate for the tasks outlined in this Performance Work Statement. The work described for Tasks 1, 2, and 3 in this work assignment are covered by Task 2 in the original SQAPP (WA 0-09). Based on this determination, the contractor is not required to modify the approved SQAPP for this action.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WAs 0-09, 1-09, 2-09 and 3-09, initially started in the Base Period of this contract. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under task(s) 1, 2, & 3 submitted and approved by EPA in the Base Period of this contract. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Deliverables: Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

##### **Task 1: Report on Available Actions and Recommendations**



As directed by the EPA WACOR, the contractor shall revise the Report on Available Actions and Recommendations which identifies options for EPA to consider as Protective Action Guides for drinking water during nuclear incidents. Any direction from EPA regarding updates will be the result from interactions with internal EPA organizations as well as interactions from interagency group. Updates would likely be to clarify or expand assessments contained in the Report.

The report includes an analysis of the risk levels to different sensitive subpopulations (i.e. children, pregnant women) associated with different PAG trigger levels. The report also contains explanations of how the health effects of radiation at different trigger levels could be clearly and effectively communicated to the public.

EPA projects that less than 10% of the total effort will be required for this Task

Deliverables:

- Revised Final Report on PAG options

### **Task 2: Assist in the Development of PAG Document & Responses to Public Comments**

The contractor shall continue supporting EPA's development of the Water Chapter of the PAG document. The water PAG chapter will be based on the report developed by Cadmus during Option Year 1. EPA anticipates that the Water Chapter will be drafted by EPA and then transmitted to the Contractor for review and updates. EPA will consider recommendations and then direct the contractor to complete any necessary revisions.

The contractor shall support EPA by developing responses to the technical comments related to the selection of Drinking Water PAGs. EPA will identify comments for the contractor to develop responses based on the work performed under Task 1.

EPA estimates that 40% of the total effort will be required in support of this task.

Deliverables:

- Draft Water PAG Chapter & Responses to Comments
- Final Water PAG Chapter & Responses to Comments

### **Task 3 –Support EPA's Development of PAG Guidance and Implementation Document**

The contractor shall support the development of a Guidance and Implementation Document that will serve as a support piece for the Drinking Water PAG proposal. The guidance and implementation document main audience will be emergency response officials as well as drinking water system administrators. The focus of the document will be to provide assistance to emergency planners and system operators in understanding the technical basis of the PAG proposal as well as provide useful examples and scenarios to assist users in the development of emergency response plans.

The Guidance and Implementation document will be based on the previous reports developed by Cadmus during option Years 1 and 2 regarding the drinking water PAG chapter. EPA anticipates that the Guidance document outline will be drafted by EPA and then transmitted to the Contractor for the development of technical analysis and evaluation of areas where additional information is required, in addition the contractor will review and update sections of the guidance document as directed by EPA. EPA will consider recommendations and then direct the contractor to complete any necessary revisions.

The document will include sections covering the following: basic information describing radiation, radiation health effects, risk communication, understanding radiation risks, treatment technologies, analytical methods, and available approaches for emergency planning in response to a radiation contamination incident.

Further, this task includes providing descriptions about the appropriateness of the assumptions used in the development of the DRLs for the DW PAG and if needed develop additional support material (evaluations and analysis) in support of such assumptions, as specified in a Technical Directive from the EPA WACOR.

EPA estimates that 50% of the total effort will be required in support of this task.

Deliverables:

- Draft revised outline of the Guidance & Implementation Document
- Draft Guidance & Implementation Document

#### **G. SCHEDULE OF DELIVERABLES:**

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. of Copies/Medium</b>
0	Work Plan	Per Contract requirements	Electronic copies (MS Word) as requested by WACOR
0	Monthly Progress Reports	Per Contract requirements	Electronic copies (MS Word) as requested by WACOR
1	Final Revised Report on PAG options (508 compliant)	1 month from WACOR TD	Electronic copies (MS Word) as requested by WACOR
2	Draft Revised Water PAG Chapter & Responses to Comments	1 month from WACOR TD	Electronic copies (MS Word) as requested by WACOR
2	Final Revised Water PAG Chapter & Responses to Technical Comments (508 compliant)	1 month from WACOR TD	Electronic copies (MS Word) as requested by WACOR
3	Draft revised outline of the Guidance & Implementation Document	1 month from WACOR TD	Electronic copies (MS Word) as requested by WACOR
3	Draft Guidance & Implementation Document	1 month from WACOR TD	Electronic copies (MS Word) as requested by WACOR

**H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 750 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

**I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** *None.*

**K. SPECIAL REPORTING REQUIREMENTS:** *None.*

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-11				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Regulatory determination 4				
Contractor Cadmus Group, Inc., The					Specify Section and paragraph of Contract SOW Sections 1.0, 5.0 and 6.0					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   05/01/2016   To   04/30/2017					
Comments: Work Assignment Issuance.   Work shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:   0				
11/01/2012   To   04/30/2017										
This Action:						1,840				
Total:						1,840				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Julie Javier						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-2335				
						FAX Number:				
Project Officer Name   Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				

**Performance Work Statement  
Cadmus Contract EP-C-12-023  
Work Assignment 4-11**

**A. TITLE:** Support for Regulatory Determination 4

**B. PERIOD OF PERFORMANCE:** May 1, 2016 – April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR)**

Julie Javier  
1201 Constitution Ave, N.W.  
Washington, DC 20460  
Mail Code 4607M  
Tel: 202-564-2335  
E-mail: javier.julie@epa.gov

**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWACOR)**

Zeno Bain  
1201 Constitution Ave, N.W.  
Washington, DC 20460  
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E-mail: bain.zeno@epa.gov

**D. BACKGROUND**

The Safe Drinking Water Act (SDWA), as amended in 1996, directed the Environmental Protection Agency (EPA) to publish a list of contaminants (referred to as the Contaminant Candidate List, or CCL) to assist in priority-setting efforts. The SDWA also directs EPA to select five or more contaminants from the CCL and determine whether or not to regulate these contaminants with a National Primary Drinking Water Regulation (NPDWR). This process is called Regulatory Determination (RD).

This work assignment, WA 4-11, outlines work to support the fourth round of Regulatory Determination (RD4), i.e., the regulatory determination process for contaminants on the Fourth CCL (CCL4). It also continues efforts that were started under the previous work

assignments such as the technical analyses needed by the EPA to make a final regulatory determination for strontium. **Section F** of this document lists the tasks covered by WA 4-11.

## **E. QUALITY ASSURANCE**

Tasks 1 to 6 in this work assignment requires the use of secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under Tasks 1, 2, 4, 5, and 6 of WA 0-11, consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract Level Quality Assurance Project Plan (QAPP). The following table shows which tasks under this work assignment correspond to which tasks under the SQAPP.

<b>WA 4-11 Task</b>	<b>SQAPP Task</b>
1	2
2	5
3	5
4	5
5	2.3
6	4

The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

## **F. TASK DESCRIPTION**

### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-11, 1-11, 2-11, and 3-11. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under tasks 1, 2, 4, 5, and 6 of WA 0-11. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

*Deliverables:*

- Work plan
- Monthly progress and financial reports

**Task 1: Occurrence Analyses for CCL4 Contaminants**

The contractor shall conduct occurrence analyses for contaminants in CCL4 and other contaminants as directed by the WACOR to support the RD4 process. The contractor shall consider the data sources that are currently available as well as any new data sources that may become available during the option year, in discussion with EPA, as described in technical direction from the WACOR. EPA expects that the occurrence data will come mainly from monitoring performed under the Third Unregulated Contaminant Monitoring Rule (UCMR3).

Occurrence analyses shall be conducted using a two-stage analytical approach, the same approach outlined in WA 3-11. A summary of the two-stage approach is described below.

In Stage 1, the data are first reviewed, quality-checked, and characterized. They are then analyzed to generate simple, clear non-parametric estimates of contaminant occurrence. In Stage 2, statistical modeling is used to generate national probability estimates of contaminant occurrence based on estimated annual (or longer-term) mean concentrations of contaminants along with statistical measures of uncertainty and error. As directed by the WACOR, Stage 2 modeling may be done for contaminants with occurrence at potential levels and frequency of public health concern based on Stage 1 results.

To the extent that new occurrence data sources become available, the contractor shall update the analysis of the occurrence data and consequently, update the Stage 1 and Stage 2 analyses reports.

The contractor shall also use publically available data to construct national extrapolations for specific chemicals when directed to do so by the WACOR.

The contractor shall additionally conduct analysis to support EPA's Environmental Justice considerations, as directed, up to and including:

- How did your public participation process provide transparency and meaningful participation for minority, low-income, and indigenous populations and tribes?
- How did you identify and address existing and new disproportionate environmental and public health impacts on minority, low-income, and indigenous populations?
- How did actions taken under #1 and #2 impact the outcome or final decision?

The above defined questions are broad areas defined by the Environmental Justice Office. Initial analysis by the contractor shall focus on question 2 primarily. This effort is a continuation of previous efforts under Cadmus contract EP-C-07-022 WA 4-18 and shall be requested in technical direction if necessary.

Any collection of information shall be in compliance with the Paperwork Reduction Act (44 U.S.C. chapter 35; 5 CFR 1320) and approved ICRs in place.

*Deliverables:*

- Stage 1 analysis report
- Stage 2 analysis report

**Task 2: Background Documents for CCL4 Contaminants**

The contractor shall update the background documents and status tables for a subset of CCL4 contaminants, as identified by the WACOR. The background documents and status tables were previously completed under WA 3-11. They provided detailed and summarized information about available occurrence and health data for each contaminant. The contractor shall update these documents as appropriate when new data become available.



The contractor shall make sure that the final documents are compliant with Section 508 standards for web posting.

*Deliverables*

- Updated background documents and summary tables

**Task 3: Support Documents for CCL4 Contaminants with Potential Regulatory Determinations**

The contractor shall develop the regulatory determination support documents for contaminants identified by EPA as candidates for regulatory determination. To put together the support documents, the contractor shall compile information and data on the contaminant's (1) physical and chemical properties, (2) use and environmental release, (3) environmental fate, (4) potential health effects, and (5) occurrence and exposure estimates.

Scientific journal articles published in foreign languages shall be translated for EPA use as directed by the WACOR.

As needed, the contractor shall also conduct and describe analyses not conducted previously that may be required to develop text, exhibits, and appendices of the documents.

The contractor shall update the documents as new data and information become available as directed by the WACOR.

The contractor shall make sure that the final documents are compliant with Section 508 standards for web posting.

*Deliverables*

- RD4 Support Documents

**Task 4: Protocol Document for RD4**

As directed by the WACOR, the contractor shall update the *Regulatory Determination 3 Protocol Document* with changes made to the regulatory determination process for RD4. Examples of changes being considered for RD4 are the addition of new data sources, the removal of others, and the use of modeling in Phase 2 of the process.

The contractor shall make sure that the final document is compliant with Section 508 standards for web posting.

*Deliverables:*

- Protocol Document for RD4

**Task 5: Strontium Analyses**

The contractor shall conduct quality assurance checks and reviews on analyses related to strontium. These analyses include but are not limited to the relative source contribution (RSC), occurrence, and assessment of treatment technology. EPA needs these analyses to make a final regulatory determination on strontium.

The contractor shall also refine the occurrence analysis for strontium. When the agency made the preliminary determination for strontium, it considered data from the National Inorganics Radionuclides Survey (NIRS). Strontium was monitored under the UCMR3. That data was not available at the time when the agency made the preliminary determination for strontium. The contractor shall update the occurrence analysis for strontium using the UCMR3 data and revised the strontium RSC.

As directed by the WACOR, the contractor shall update the support documents for strontium. The contractor shall make sure that the final documents are compliant with Section 508 standards for web posting.

*Deliverables:*

- RSC calculation
- Occurrence report
- Updated support documents

**Task 6: Other Technical and Programmatic Support**

This task covers work related to meeting support and other analyses deemed by the WACOR to be necessary to support the work for RD4.

The contractor shall attend and prepare summaries of all workgroup meetings and other meetings related to the tasks under this work assignment. As directed by the WACOR, the contractor shall prepare and review materials for meetings including, but not limited to handouts, presentations, memos.

The contractor shall also develop and complete other materials such as support documents and discussion papers the WA COR deems appropriate and necessary. That contractor shall make sure materials that will be posted on the web are compliant with 508 standards.

As directed by the WACOR, the contractor shall conduct occurrence analysis and other necessary analyses for emerging contaminants and other contaminants of interest. The contractor shall consider the data sources that are currently available as well as any new data sources that may become available during the option year, in discussion with EPA, as described in technical direction from the WACOR.

*Deliverables:*

- Meeting notes and summaries
- Briefing and presentation materials (such as presentations, memos, handouts)
- Support documents and discussion papers
- Occurrence analysis for emerging contaminants and other contaminants of interest

**G. SCHEDULE OF DELIVERABLES**

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. of Copies / Medium</b>
<b>Task 0:</b> Work Plan and Monthly Progress Reports	Work plan	Per contract requirements	Electronic
	Monthly progress and financial reports	Per contract requirements	Electronic
<b>Task 1:</b> Occurrence Analyses for CCL4 Contaminants	Stage 1 Analysis Report	As specified in technical direction from EPA	Electronic
	Stage 2 Analysis Report	As specified in technical direction from EPA	Electronic
<b>Task 2:</b> Background Documents for CCL4 Contaminants	Updated background documents and summary tables	As specified in technical direction from EPA	Electronic
<b>Task 3:</b> Support Documents for CCL4 Contaminants with Potential Regulatory Determinations	RD4 Support Documents	As specified in technical direction from EPA	Electronic

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. of Copies / Medium</b>
<b>Task 4:</b> Protocol Document for RD4	Protocol Document for RD4	As specified in technical direction from EPA	Electronic
<b>Task 5:</b> Strontium Analyses	RSC calculation	As specified in technical direction from EPA	Electronic
	Occurrence report	As specified in technical direction from EPA	Electronic
	Updated support documents	As specified in technical direction from EPA	Electronic
<b>Task 6:</b> Other Technical and Programmatic Support	Meeting notes and summaries	As specified in technical direction from EPA	Electronic
	Briefing and presentation materials (such as presentations, memos, handouts)	As specified in technical direction from EPA	Electronic
	Support documents and discussion papers	As specified in technical direction from EPA	Electronic
	Occurrence analysis for emerging contaminants and other contaminants of interest.	As specified in technical direction from EPA	Electronic

## H. LEVEL OF EFFORT ESTIMATES

EPA estimates that **1840** professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE / MEETING GUIDELINES AND LIMITATIONS**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

#### **J. TRAVEL**

Only local travel is expected.

#### **K. SPECIAL REPORTING REQUIREMENTS**

The contractor shall provide status updates for each task on a weekly or bi-weekly basis, either through a meeting with the WA COR or over the telephone or email. Also, the contractor shall provide budget updates monthly by phone or email.

#### **L. QUALITY ASSURANCE SURVEILLANCE PLAN**

Per Contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-13			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-12-023		Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4		Title of Work Assignment/SF Site Name Contaminant Candidate List 4:					
Contractor Cadmus Group, Inc., The				Specify Section and paragraph of Contract SOW Sections 1.0, 3.0, 4.0, 5.0, 6.0					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance  From   05/01/2016   To   04/30/2017					
Comments: Work Assignment Issuance. Work shall not commence until May 1, 2016.									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund           Accounting and Appropriations Data           <input checked="" type="checkbox"/> Non-Superfund         </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
11/01/2012 To 04/30/2017				0					
This Action:				4,350					
Total:				4,350					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name   Hannah Holsinger						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number: 202-564-0000			
						FAX Number:			
Project Officer Name   Ronald Coleman						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number: 202-564-8491			
						FAX Number:			
Other Agency Official Name						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number:			
						FAX Number:			
Contracting Official Name   Noelle Mills						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number: 513-487-2171			
						FAX Number:			

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-13**

**A. TITLE:** Support for Emerging Contaminants and the Contaminant Candidate List 4: Microbial Contaminants

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Hannah Holsinger  
US EPA, Room 2209W  
Mail Code 4607M  
1200 Pennsylvania Ave, N.W.  
Washington, DC 20460  
Tel: 202/564-0403; Fax: 202/564-3767  
Email: [holsinger.hannah@epa.gov](mailto:holsinger.hannah@epa.gov)

**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Heather Galada  
US EPA, Room 2209U  
Mail Code 4607M  
1200 Pennsylvania Ave, N.W.  
Washington, DC 20460  
Tel: 202/564-5248; Fax: 202/564-3767  
Email: [galada.heather@epa.gov](mailto:galada.heather@epa.gov)

**D. BACKGROUND:**

In order to protect public health, emerging contaminants that may be of concern in drinking water involve evaluating these contaminants and supporting states and public water systems in their efforts to protect public health. The Safe Drinking Water Act (SDWA), as amended in 1996, requires EPA to publish a list of contaminants, referred to as the drinking water Contaminant Candidate List (CCL), that are known or anticipated to occur in public water systems, and which may require regulation under the SDWA (Section 1412(b)(1)).

EPA published the final third drinking water Contaminant Candidate List (CCL 3) in the *Federal Register* on October 8, 2009. In developing the CCL 3, EPA implemented an improved process from those used in previous CCLs. The CCL 3 process was based on substantial expert input and recommendations from the National Academy of Science's National Research Council (NRC) and National Drinking Water Advisory Council (NDWAC). EPA used a multi-step process to identify contaminants for inclusion on the CCL 3. The list of bacteria, viruses, protozoa, helminths, and fungi in Taylor et al. (2001) was adopted upon the

recommendation of NDWAC (2004) as the starting point for the CCL 3 microbial Universe. The microbial Universe included a total of 1,425 human pathogens including those compiled by Taylor et al. (2001) as well as nominations from the scientific community and EPA experts (*Contaminant Candidate List 3 Microbes: Identifying the Universe*).

The agency then applied 11 screening criteria to identify a preliminary CCL (PCCL) of 29 pathogens based on their potential to occur in public water systems and the potential for public health concern (See document: *Contaminant Candidate List 3 Microbes: PCCL TO CCL Process*). These microbes were then further evaluated using a classification approach and expert judgment to identify the CCL 3. The screening criteria were developed, in part, following the recommendations of the NRC and NDWAC workgroup on the CCL process and further reviewed by a panel of external experts. Criteria were then further refined through deliberations of the EPA microbiology workgroup based upon the expert panel report.

Previous work assignments (WA) focused efforts to review and update existing information on drinking water microbial contaminants and provide technical support through the publishing of the fourth draft Contaminant Candidate List (CCL 4). The fourth draft CCL list was published February 4<sup>th</sup>, 2015. This WA will build upon efforts completed for previous CCL efforts under WA's 4-37 and 5-37 issued under Cadmus Contract EP-C-07-022. The contractor shall utilize materials and analyses completed for previous CCL efforts as much as possible and shall update and build upon data collected under previous CCL efforts and the CCL 3 screening process for this WA. Data, materials and analyses collected for the regulatory determination process for microbial contaminants on the CCL 3 should also be utilized as applicable.

This WA is also a follow on to efforts completed under the current contract EP-C-12-023 on previous Cadmus WA's 0-13, 1-13, 2-13 and 3-13. The documents, references, and most of the data sources that serve as applicable references are in the possession of the contractor. A list of some of these documents is provided in the "References" section at the end of this document. This list is not meant to be comprehensive and additional references could be added by either the contractor or the EPA WACOR. Under this work assignment the contractor shall continue to support EPA in the CCL 4 development process, focusing on efforts supporting the development of the final fourth CCL, and continue to support EPA in evaluating emerging contaminants, such as continuing the work on cyanotoxins.

#### **E. QUALITY ASSURANCE:**

Task 5.2 in this work assignment requires the use of **primary** data. Tasks 1, 2, 3, 5 and 6 in this work assignment requires the use of **secondary** data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under Task 0 of WA 0-13 and under Task 0 of WA-3-13 Amendment 1. EPA has determined that this approved SQAPP is appropriate for the tasks outlined in this Performance Work Statement. Based on this determination, the contractor is not required to modify the approved SQAPP for this action.



Tasks of this PWS correspond to the following Tasks within each SQAPP: Task 1 (SQAPP 0-13 Task 5, SQAPP 3-13, Task 1), Task 2 (SQAPP 3-13 Task 2), Task 3 (SQAPP 0-13 Task 4, SQAPP 3-13 Task 3), Task 5 (SQAPP 3-13 Task 5), Task 6 (SQAPP 3-13 Task 6). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

Approved SQAPP Description		SQAPP Task No.	Option Period 4, WA 4-13 Task No.
1.	Support Document(s) for the Draft CCL 4 Microbes	SQAPP 0-13 Task 5; SQAPP 3-13 Task 1	1
2.	Support for the CCL 4 Microbes Comment Response Process	SQAPP 3-13 Task 2	2
3.	Technical Analyses, Data Evaluation and Identification of Contaminants for the Draft CCL4; Analysis of Data from Public Comments	SQAPP 0-13 Task 4; SQAPP 3-13 Task 3	3
4.	Support for Additional Cyanotoxin Activities	SQAPP 3-13 Task 5	5
5.	Support for CCL 5 Activities	SQAPP 3-13 Task 6	6*
	*Denotes newly added task similar in scope and nature to the corresponding SQAPP task. The QA process should be the same as that currently applied in the task in the approved SQAPP.		

#### **F. TASK DESCRIPTION:**

##### Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-13, 1-13, 2-13 and 3-13. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under task 0 of WA 0-13 and task 0 of amendment 1 to WA 3-13. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and

costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP) accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Deliverables: Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

#### Task 1.0 Support Document(s) for the CCL 4 Microbes

Based on previous WAs the contractor developed the CCL 4 Microbe support documents that discussed the following topics: 1) summary of the evaluation process of microbial contaminants for the CCL 4 ; 2) summary of the data submitted through the nomination process; 3) summary of the data collected on nominated microbial pathogens (not provided through the nomination process); 4) data collected on the 12 microbial pathogens included in the final CCL 3 and associated support documents (e.g. updated fact sheets); 5) summary of nominated microbial contaminants scoring from Tasks 3 and 4 as appropriate (under WAs 0-13, and 1-13) and; 6) summary of the updated data compared to the data available under CCL 3. The contractor shall refer to the CCL 3 support document "*Contaminant Candidate List 3 Microbes: PCCL TO CCL Process*" and use as a reference for the CCL 4 Microbes support document. The contractor shall update this document after approval and technical direction from the EPA WACOR based on revisions to the draft fourth CCL and additional actions taken due to public comments. The final version of the support documents shall adhere to the requirements under Section 508 as previously stated.

The contractor shall also provide support for developing briefing materials, updating previous support documents drafted under WA previous WA's 4-37 and 5-37 of contract EP-C-07-022 and WA's 0-13, 1-13, 2-13 and 3-13 of contract EP-C-12-023 as needed (e.g., Contaminant Information Sheets), and other issue papers related to the CCL microbial contaminants, based upon written technical direction from the EPA WACOR. The contractor shall continue to support the development of support documents for cyanobacteria and cyanotoxins that began under previous WA 2-13 and 3-13 as directed by the EPA WACOR through technical direction.

Deliverables: Revised Final CCL4 Microbes Support Document (508 compliant); 508 compliant final cyanobacteria support documents.

#### Task 2.0: Support for the CCL 4 Microbes Comment Response Process

The contractor shall maintain and update the CCL comment response database and its supporting documentation. The contractor shall notify the EPA WACOR when the down-time occurs. The contractor shall locate comments by their subject code, track the number of comments under each subject code and check responses to ensure all comments have been responded to. After technical direction from the EPA WACOR, the contractor shall query the database and provide the EPA WACOR with the approximate number and nature of comments received.

The contractor shall sort comments by subject category code for distribution to EPA staff responsible for responding to comments.

Deliverables: Draft Comment Response Database

#### Task 3.0: Analysis of Data from Public Comments

The contractor shall support EPA's evaluation of data and information submitted during the public comment period. The contractor shall compile a summary (table or spreadsheets) of data and information submitted during the public comments and compare this data to data EPA has previously collected to determine whether the data provided is new. If new data is submitted, the contractor shall evaluate and document whether the data meets the assessment factors (developed under CCL 3) to be considered in the CCL process (i.e., is the data relevant, is the data complete (including meeting quality requirements), and is the data redundant with any other more comprehensive data sources), and evaluate whether the data could be used for screening and scoring based on the data hierarchies developed under CCL 3. This is to ensure that the best available data is used in the CCL 4 evaluation process. If the data can be used in the CCL 4 process (based on the factors described above), at the written direction of the EPA WACOR, the contractor shall use the new data to re-screen and re-score the contaminants, and document any changes. Should commenters cite sources of data, Cadmus shall support EPA's data collection and data review efforts, as stated for commenter submitted data, as directed by technical direction.

If changes are made from the Draft CCL 4 to the Final CCL 4 as a result of public comments (or comments from the Science Advisory Board), the contractor shall also, at the direction of the EPA WACOR provide a spreadsheet(s) showing changes between the Draft and Final CCL 4 Universe, PCCL, and CCL. The contractor shall also, at the written direction of the WACOR, provide written descriptions/ rationale for such changes.

Deliverables: Draft(s) summaries of changes between the Draft and Final CCL 4 Universe, PCCL, and CCL

#### Task 4.0: Support for Public Meetings

The contractor shall continue to provide logistical and facilitation support for one half day (5 hours for estimation purposes) public meeting and webinar (simultaneous) started under WA 3-13 on obtaining public input on EPA's document *Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water* and other cyanotoxin management activities. As directed by EPA through technical direction, the contractor shall support meeting activities including but not limited hand-outs; day of support with the meeting room and online meeting resources; facilitation of both in person and webinar media; note-taking and completion of meeting summary reports and/or question and answer documents for the record, as directed by the WACOR through technical direction.

EPA projects that the event (public meeting) outlined under this task will not reach the agency's \$20,000 threshold for conference spending. This task shall be tracked separately for the purposes of monthly reporting and the contractor shall ensure that this task meets the requirements of **Section I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS.**

Deliverables: As directed by the EPA WACOR, draft(s) and final versions of hand-outs (508 compliant); draft(s) and final versions of summary reports and meeting notes, as specified in technical direction from EPA WACOR

#### Task 5: Support for Additional Cyanotoxin Activities

##### *Task 5.1: Meeting/Workshop Support*

The contractor shall continue to provide logistical support for up to 1 to 2 meeting/workshops, started under WA 3-13, to discuss the HABs support document titled "Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water" released in June 2015 and other cyanotoxin management activities including source water protection. These activities will allow for discussion of information and experiences with cyanotoxins produced by cyanobacteria. As directed by EPA through technical direction, the contractor shall support meeting activities including but not limited to fact sheets, hand-outs; identification of meeting rooms and facilities and online meeting resources; meeting facilitation; and note-taking and completion of meeting summary reports and/or question and answer documents for the record, as directed by the WACOR through technical direction.

EPA projects that the individual events outlined under this task will not reach the agency's \$20,000 threshold for conference spending. This Task shall be tracked separately for the purposes of monthly reporting and the contractor shall ensure that this Task meets the requirements of **Section I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS.**

Deliverables: As directed by the EPA WACOR, draft(s) and final versions of fact sheets, and hand-outs (508 compliant); draft(s) and final versions of summary reports and meeting notes, as specified in technical direction from EPA WACOR

##### *Task 5.2: Support for Cyanotoxin Support Document*

The contractor shall continue to provide technical and logistical support started under WA 3-13 for the development of four to five pilot studies (or model plans) evaluating the implementation of the support document recommendations, as directed by the WACOR through technical direction. The purpose of the pilot studies is to help provide information that can be used to update the HABs support document titled "Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water" released in June 2015. The contractor shall provide support for the pilot systems in developing a model plan for implementing the recommendations published in the support document (available at <http://www.epa.gov/nutrient-policy-data/recommendations-public-water-systems-manage-cyanotoxins-drinking-water>) that could be used to help other public water systems develop

their own plan for managing risks to cyanotoxins. The contractor, under the direction of the EPA WACOR, shall work directly with EPA-selected utilities to provide the public with realistic plans based on real-life scenarios. The contractor shall provide support in updating the “Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water” and other issue papers and fact sheets based on lessons learned from the pilot studies and other additional information sources, as directed by the WACOR through technical direction.

*Task 5.2.1: Monitoring support for Task 5.2*

The contractor shall provide technical support of cyanotoxin monitoring methods and data evaluation obtained from the pilot studies discussed in Task 5.2, as directed by the EPA WACOR through technical direction. The contractor shall verify sufficient laboratory capacity is established in order to conduct cyanotoxin monitoring for microcystins, cylindrospermopsin, and anatoxin-a as part of Task 5.2 using one or more of the following methods: Enzyme-Linked Immunosorbent Assay (ELISA), EPA method 544, EPA method 545, and/or other methods as directed by the EPA WACOR. The contractor shall provide analytical support for monitoring cyanotoxins in raw and finished water for specific utilities with relatively short notice, due to the nature of cyanotoxin occurrence, as directed by the EPA WACOR through technical direction.

Deliverables: Weekly status reports of the pilot plant studies, as specified in technical direction from EPA WACOR; Draft(s) and final versions of summary reports and full of the pilot studies, as specified in technical direction from EPA WACOR; Draft(s) and final versions of the revised support document (508 compliant), issue papers and fact sheets, as specified in technical direction from EPA WACOR

Task 6: Support for CCL 5 Activities

The contractor shall, as directed by the WACOR through technical direction, support EPA’s development of a proposal for improvements to the CCL 3 microbial process that was also utilized under CCL 4. The contractor shall, as directed by the WACOR through technical direction, support EPA’s development of draft CCL 5 including activities such as scoping the necessary sources of health and occurrence information, reviewing new information sources, updating and developing microbial factsheets, and supporting EPA in the development of the CCL 5 process.

Deliverables: Draft report on possible improvements to the CCL 3 microbial process; draft reports on scoping the necessary data sources and factsheets as specified in technical direction from EPA WACOR

**G. SCHEDULE OF DELIVERABLES:**

The contractor shall deliver all draft and final documents in Microsoft Office documents and/or PDFs and will comply with the EPA’s 508 compliance requirements for posting on the Internet. Unless otherwise requested by the EPA WACOR in writing, the contractor shall deliver all other products electronically. All due dates below are calendar days, weeks, or months unless otherwise noted.

<b>Task</b>	<b>Deliverable Description</b>	<b>Estimated Date Of Completion</b>
<b>0</b>	Work plan, Technical Progress Reports	Per contract
<b>1.0</b>	Updated Final CCL 4 Microbes Support Document (508 compliant)  508 compliant final cyanobacteria support document.	TBD in written technical direction from the EPA WACOR  TBD in written technical direction from the EPA WACOR
<b>2.0</b>	Draft Comment Response Database	TBD in written technical direction from the EPA WACOR
<b>3.0</b>	Draft(s) summaries of changes between the Draft and Final CCL 4 Universe, PCCL, and CCL	TBD in written technical direction from the EPA WACOR
<b>4.0</b>	Draft(s) and final versions of meeting notes summary reports, as specified in technical direction from EPA WACOR	TBD in written technical direction from the EPA WACOR
<b>5.1</b>	Draft(s) and final versions of fact sheets, and hand-outs (508 compliant), as specified in technical direction from EPA WACOR  Draft(s) and final versions of summary reports and meeting notes, as specified in technical direction from EPA WACOR	TBD in written technical direction from the EPA WACOR  TBD in written technical direction from the EPA WACOR
<b>5.2</b>	Weekly status reports of the pilot plant studies, as specified in technical direction from EPA WACOR  Draft(s) and final versions of summary reports and full reports of the pilot studies, as specified in technical direction from EPA WACOR  Draft(s) and final versions of the revised support document (508 compliant), issue papers and fact sheets, as specified in technical direction from EPA WACOR	TBD in written technical direction from the EPA WACOR  TBD in written technical direction from the EPA WACOR  TBD in written technical direction from the EPA WACOR
<b>6.0</b>	Draft report on possible improvements to the CCL 3 microbial process; draft reports on scoping data sources and factsheets	TBD in written technical direction from the EPA WACOR

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 4350 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** Travel is anticipated from the Contractor to support the work outlined in Task 5.1 and Task 5.2 of this work assignment amendment. For planning purposes, the contractor shall assume up to 1 to 2 meeting/workshops for Task 5.1 as well as up to 4 to 5 pilot plants for Task 5.2. For planning purposes, the contract shall assume Task 5.1 will require one 2-day trip and one 3-day trip for 1 project staff to support meeting/workshop logistics. For Task 5.1 the specific locations for the meeting/workshops have not yet been selected. However for planning purposes, the contractor shall project the cost based on for 1 project staff as follows: from Waltham Massachusetts to 1 -Massachusetts city (assume Boston, MA), 1 Southern city (assume Dallas, TX). For Task 5.2 for planning purposes, the contractor shall project the cost based on 4 to 5, 2 to 3-day trips for 1 project staff as follows: from Waltham Massachusetts to 2 - West Coast cities (assume Clear Lake, CA and Myrtle Creek, OR), 1 Midwest city (assume Ottawa County, OH) and 1-East Coast city (assume Perry, NY).

**K. SPECIAL REPORTING REQUIREMENTS:** The contractor shall address each task separately in the monthly progress and financial support.

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements.

#### **M. REFERENCES**

- Contaminant Candidate List 3 Microbes: Identifying the Universe (EPA 815-R- R-09-004)
- Contaminant Candidate List 3 Microbes: Screening to the PCCL (EPA 815-R-09-005)
- Contaminant Candidate List 3 Microbes: PCCL TO CCL Process (EPA 815-R-09-009)
- Drinking Water Contaminant Candidate List 3 – Draft Notice
- Drinking Water Contaminant Candidate List 3 – Final Rule
- Microbial Expert Input and Review for the Third Contaminant Candidate List (EPA 815-R-08-0010)
- Summary of Nominations for the Third Contaminant Candidate List (August, 2009)
- Guidelines for Canadian Drinking Water Quality (CADW): Summary of Guidelines – Health Canada
- Health Canada. 2006. Guidelines for Canadian Drinking Water Quality (CADW): Guideline Technical Document - Bacterial Waterborne Pathogens: Current and Emerging Organisms of Concern.
- Knipe, D. M. and P. M. Howley (ed.). 2007. Fields Virology, 5th Edition, Wolters-Kluwer Lippincott Williams & Williams, Philadelphia.

- Knipe, D. M. and P. M. Howley (ed.). 2013. Fields Virology, 6th Edition, Lippincott Williams & Williams, Philadelphia.
- Murray, P. R., E. J. Baron, J. H. Jorgensen, M. L. Landry, and M. A. Pfaller (ed.). 2007. Manual of Clinical Microbiology, 9th Edition, ASM Press, Washington, DC.
- Murray, P. R., E. J. Baron, J. H. Jorgensen, M. L. Landry, and M. A. Pfaller (ed.). 2011. Manual of Clinical Microbiology, 10th Edition, ASM Press, Washington, DC.
- Taylor, H.L., S.M. Latham, and M.E.J. Woolhouse. 2001. Risk factors for human disease emergence. *Phil. Trans. R. Soc. Lond. B.* (356): 983 – 989.
- Appendix to *Phil. Trans. R. Soc. Lond. B.* (ISSN 0962 8436) No. 1411, pp. 983 – 989, July 29, 2001.
- WHO Guidelines for Drinking Water Quality (4<sup>th</sup> Edition, 2011)
- USEPA. 2015. Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water. Available online at <http://www.epa.gov/nutrient-policy-data/recommendations-public-water-systems-manage-cyanotoxins-drinking-water>
- USEPA. 2015. Algal Toxin Risk Assessment and Management Strategic Plan for Drinking Water. Available online at <http://www.epa.gov/nutrient-policy-data/algal-toxin-risk-assessment-and-management-strategic-plan-drinking-water>



<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-14				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017 Base                      Option Period Number    4			Title of Work Assignment/SF Site Name Lab Certification Training				
Contractor Cadmus Group, Inc., The						Specify Section and paragraph of Contract SOW Sections 1.2.2				
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From 05/01/2016 To 04/30/2017				
Comments: Initial work assignment issuance. Work shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
11/01/2012 To 04/30/2017										
This Action:						1,900				
Total:						1,900				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Carrie Miller						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-569-7919				
						FAX Number:				
Project Officer Name Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-14**

**A. TITLE:** Laboratory Certification Chemistry/Microbiology Training Support and Oversight

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

**Carrie Miller  
USEPA/OGWDW/SRMD/TSC  
26 W MLK Dr. MC140  
Cincinnati, OH 45268  
Miller.carrie@epa.gov  
513-569-7919**

**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S  
REPRESENTATIVE (AWA COR):**

**Glynda Smith  
USEPA/OGWDW/SRMD/TSC  
26 W MLK Dr. MC140  
Cincinnati, OH 45268  
smith.glynda@epa.gov  
513 569-7652**

**D. BACKGROUND:**

The Office of Ground Water and Drinking Water's Technical Support Center (TSC) has the responsibility for developing and implementing a national certification program for laboratories that analyze drinking water samples in compliance with the Safe Drinking Water Act. Whereas 40 CFR 142.10(b) generally requires the establishment and maintenance of State laboratory capability for all regulated analytes, TSC uses the Manual for the Certification of Laboratories Analyzing Drinking Water, Fifth Edition to determine the adequacy of State certification programs. TSC oversees the EPA Regional audits and assessments of the State principle labs and programs. The tasks outlined in this performance work statement support TSC's activities related to implementing the requirements of the National Primary Drinking Water Regulations (40 CFR 141).

**E. QUALITY ASSURANCE:**

The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance Project Plan (SQAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

## **F. TASK DESCRIPTION:**

### Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which the staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed, the contractor shall include information on plans to manage work and control costs.

As directed by EPA, the contractor shall participate in conference calls and other communication specific to the activities outlined in this PWS. The contractor shall take notes and maintain a record of decisions, actions and outstanding issues made during ad hoc conference calls, approximately bi-weekly.

The contractor shall prepare a statement indicating that this WA is a continuation of WA 0-14, 1-14, 2-14 and 3-14. This task includes written monthly progress, verbal updates and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and whether significant issues, including Quality Assurance, have been identified and how they are being resolved. The contractor will update WACOR, alt WACOR and TSC team on their progress when requested by WACOR/alt WACOR, generally during a biweekly conference call. The contractor shall record decisions, actions and outstanding issues made during the meeting for delivery to WACOR. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Deliverables: Work plan and monthly progress and financial reports submitted in accordance with contract requirements. Record of decisions, actions and outstanding issues made during ad hoc conference calls.

### Task 1: Certification Officer Training Course

The contractor shall support development and implementation of the technical and administrative services to include development of course material, course logistics, administration and documentation as directed by the WACOR.

Personnel qualifications for the contractor should include a mix of skills such as: working knowledge of chemistry and microbiology methods and quality control requirements for laboratories analyzing compliance drinking water samples. Travel to Cincinnati for up to 10 days is anticipated for this task.

Deliverables: Technical documents, administrative services and an EPA-formatted SOP for course execution.

### Task 2: Regional Laboratory Certification Program Assessments (RLCPA)

The contractor shall issue, retrieve and analyze the RLCPA checklists and annual questionnaires (AQs). The contractor shall use information from the RLCPA checklists and AQs to inform the EPA Regions of findings, recommendations and management responsibilities for successful drinking water laboratory oversight. The contractor shall distribute the information with a variety of media including, but not limited to, EPA-formatted documents, SharePoint and on-site observations and discussions. The contractor shall administer the RLCPAs for two EPA Regions and complete a RLCPA report for a third region. Dates for the on-site assessments are to be determined for a time convenient for TSC and each Region. The contractor shall conduct file review and take notes during the interviews conducted during on-site trip. The contractor shall prepare a draft report. The contractor shall incorporate TSC comments, including any corrective actions that TSC recommends. The contractor shall prepare a final report.

Personnel qualifications for the contractor should include a mix of skills such as: familiarity with State Certification Programs; and, database skills for inputting elements and use for tracking future RLCPAs. Travel for 2 people to EPA Regional facilities in Kansas City, KS and Golden, CO is anticipated for this task.

Deliverables: Pre-populated RLCPA checklists and final checklists, notes from the on-site visit, draft and final reports with corrective actions for each Region. Formatted documents will include revision to the certification manual. Well maintained, functional and user-friendly SharePoint site. Electronic tracking system for managing RLCPA checklists and AQs.

### Task 3: Administrative support.

The contractor shall compile and distribute agendas, communicate meeting logistics, record meeting minutes and perform pertinent fact-finding to resolve regional issues. The contractor

shall notify all participants of an agreeable date, time and call-in number. The contractor shall take minutes for 3 kinds of meetings: 1) bi-weekly meetings with TSC (contractor/TSC minutes); 2) TSC meetings at a frequency between 2 and 4 per month (TSC-only minutes); and 3) monthly TSC/Regional Teleconference (monthly minutes). The contractor shall email the draft minutes from all meetings simultaneously to all TSC Lab Cert Team Members.

Personnel qualifications for the contractor should include a mix of skills such as: meeting organization, good communication, note recording and knowledge of standard operating procedures for certification programs. No travel is anticipated for this task.

Deliverables: Meeting agendas and minutes.

#### **G. SCHEDULE OF DELIVERABLES:**

Task	Deliverable	Due EPA	# Copies/Medium
0	Work Plan	Per contract.	Via email
0	Monthly progress and financial reports	Per contract.	Via email
0	Record of decisions, actions and outstanding issues made during ad hoc conference calls, approximately bi-weekly	7 days after conference call	One copy via email
1	Technical documents, administrative services and an EPA-formatted SOP for course execution.	Upon EPA technical direction.	One copy via email
2	Tracking system for managing RLCPA checklists and AQs.	Upon EPA technical direction.	Software system
2	Summary of pertinent information from the annual questionnaire, previous RLCPA reports and pre-populated checklist.	15 working days prior to the Regional on-site RLCPA.	One copy via email
2	Final checklists, notes from the on-site visit, and draft report.	Within 15 working days after the Regional on-site RLCPA.	One copy via email

2	Final report and final checklist with incorporation of corrective actions and TSC comments.	Within 10 working days after receiving comments from TSC.	One copy via email
2	Compile Annual Questionnaire response from the Regions into 1 report.	Upon EPA technical direction.	One copy via email
2	Formatted documents will include revision to the certification manual.	30 days after technical direction	One copy via email
2	SharePoint site development and maintenance.	Upon EPA technical direction.	Functional site
3	Meeting agendas and minutes.	Draft agenda to TSC before TSC preparatory meeting. Agendas at least 2 days before the meeting. Minutes within 7 days of the meeting.	One copy via email
3	Meeting Work Products	Upon EPA technical direction	One copy via email

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 1900 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CLCOR and WACOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** Travel to Cincinnati for up to 10 days is anticipated for Task 1. Travel for 2 people to EPA Regional facilities in Kansas City, KS and Golden, CO is anticipated for Task 2.

**K. SPECIAL REPORTING REQUIREMENTS:** The contractor will update WACOR, alt WACOR and TSC team on their progress when requested by WACOR/alt WACOR, generally during a biweekly conference call. The contractor shall record decisions, actions and outstanding issues made during the meeting for delivery to WACOR.

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-16			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-12-023		Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4		Title of Work Assignment/SF Site Name Microbial/Disinfectant By-Prod					
Contractor Cadmus Group, Inc., The				Specify Section and paragraph of Contract SOW Section 1.1, 2.1 and 3.1					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance  From   05/01/2016   To   04/30/2017					
Comments: Work Assignment Issuance.   Work shall not commence until May 1, 2016.									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund         <span>Accounting and Appropriations Data</span> <input checked="" type="checkbox"/> Non-Superfund       </div>									
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
11/01/2012   To   04/30/2017				0					
This Action:				7,890					
Total:				7,890					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name   Richard Weisman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-2822 FAX Number:			
Project Officer Name   Ronald Coleman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8491 FAX Number:			
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name   Noelle Mills  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:			



**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-16**

**A. TITLE:** Review of Microbial/Disinfectant By-Product Rules

**B. PERIOD OF PERFORMANCE:** Effective Date through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE:**

Rich Weisman  
Standards and Risk Reduction Branch  
US EPA, Room 2209P  
1200 Pennsylvania Ave., NW  
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Washington, DC 20460  
Tel: (202) 564-2822  
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**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE:**

Ken Rotert  
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Washington, DC 20460  
Tel: (202) 564-5280  
Fax: (202) 564-3767  
E-mail: [rotert.ken@epa.gov](mailto:rotert.ken@epa.gov)

**D. BACKGROUND:**

The 1996 Amendments to the Safe Drinking Water Act (SDWA) requires the U.S. Environmental Protection Agency (EPA) to review its existing drinking water regulations every six years. Section 1412(b)(9) of the SDWA states "The administrator shall, not less often than every 6 years, review and revise, as appropriate, each national primary drinking water regulation promulgated under this title. Any revision of a national primary drinking water regulation shall be promulgated in accordance with this section, except that each revision shall maintain, or provide for greater, protection of the health of persons."

Since the 1996 SDWA Amendments were enacted, EPA has completed two comprehensive reviews of existing National Primary Drinking Water Regulations: Six-Year Review 1 (completed in July 2003) and Six-Year Review 2 (completed in March 2010). Under Six-Year Review 1, the Agency reviewed 69 National Primary Drinking Water Regulations (NPDWRs), which included 68

chemical NPDWRs and the Total Coliform Rule. Based on its preliminary review, public comments, and other information, the Agency concluded to revise the Total Coliform Rule, but not to revise the 68 chemical NPDWRs.

Six-Year Review 1 was conducted according to the June 2003 “EPA Protocol for the Review of Existing National Primary Drinking Water Regulations” (EPA 815-R-03-002). The protocol was developed by a workgroup, with representatives from EPA’s Office of Ground Water and Drinking Water (OGWDW), the Office of Science and Technology, the Office of General Counsel, the Office of Pesticide Programs, the Office of Research and Development, the Office of Policy, Economics and Innovation, the Office of Solid Waste and Emergency Response, and EPA Regions I, V, VII, IX, and X. Workgroup members provided technical guidance throughout. The National Drinking Water Advisory Council (NDWAC) and many stakeholders provided valuable advice to improve the review process and this document. The Cadmus Group, Inc., served as the prime contractor for developing this document.

Under Six-Year Review 2, the Agency reviewed 71 NPDWRs and identified four chemical NPDWRs for revision (acrylamide, epichlorohydrin, tetrachloroethylene, and trichloroethylene). Six-Year Review 2 was conducted according to the October 2009 “EPA Protocol for the Second Review of Existing National Primary Drinking Water Regulations (Updated)” (EPA 815-B-09-002). Although the updated protocol notes that the protocol included only “minor refinements,” it nearly doubled in length, primarily due to an expanded decision tree, with detailed diagrams for each of its branches, including six that were not part of Six-Year Review 1 (health effects and Maximum Contaminant Level Goal (MCLG), Maximum Contaminant Level (MCL), treatment technique, analytical methods, occurrence and exposure, and treatment feasibility).

Under this work assignment, EPA is seeking continued support, as a follow-on to work assignment 3-16, for its effort pertaining to the Microbial and Disinfectant By-Product (MDBP) rules that EPA expects to review during the third Six-Year Review (SYR3). The MDBP rules address several regulations such as the Surface Water Treatment Rule (SWTR), Interim Enhanced Surface Water Treatment Rule (IESWTR), Long Term 1 Enhanced Surface Water Treatment Rule (LT1), Filter Backwash Recycling Rule (FBRR), Long Term 2 Enhanced Surface Water Treatment Rule (LT2), Groundwater Rule (GWR), Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR), and Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR). In total, these rules address 14 National Primary Drinking Water Regulations, including microbial contaminants/indicators (such as giardia lamblia, viruses, legionella, cryptosporidium, heterotrophic plate count (HPC), and turbidity), disinfection byproducts/indicators (such as trihalomethanes (THMs), haloacetic acids (HAAs), chlorite, and bromate), and disinfectant residuals (such as chlorine, chloramine, and chlorine dioxide). In addition, this work assignment will address issues related to nitrosamines and chlorate, which are now being covered under SYR3.

As part of the SYR3 process for the MDBP rules, EPA will assess and analyze new data/information regarding health effects, epidemiology, toxicology, occurrence, treatment, and other risk mitigation measures, analytical methods, and risk from all relevant contaminants

to evaluate whether there are new or additional ways to estimate and manage risk that will maintain or strengthen public health protection. Some of the new data/information will be based on the results from a literature review matrix, which was compiled by Cadmus under WA 5-36 (Contract EP-C-07-022). Potential outputs from the SYR3 review will include summary documents on health effects, occurrence, treatment, and implementation, as well as documents used to support the SYR action. In performing the tasks identified below, Cadmus shall indicate how each product may be incorporated into the SYR3 outputs.

#### **E. QUALITY ASSURANCE:**

Tasks 2, 3, 4, 5, 6, 7, and 8 in this work assignment require the use of secondary data. EPA has determined that the collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) dated May 20, 2015 and approved for Work Assignment 3-16, along with the addendum for support for the DBPR occurrence analysis provided in June 2015. These plans correspond to Tasks 2 through 7 identified above (see cross-reference below). The contractor shall specify in their work plan how they intend to address quality assurance for Task 8.

#### **Cross-Reference Summary of Tasks in WA 4-16 vs WA 3-16**

<b>Task Subject</b>	<b>Task Number in WA 4-16</b>	<b>Task Number in WA 3-16</b>
SYR3 Support Documents	2	6
Support for SYR3 Occurrence Analysis	3	7
FRN and Options Support	4	10
Research and Information Collection Partnership Support	5	8
Emerging Waterborne Pathogens, and Risk Management Approaches Support	6	9
LT2 Support	7	11
Nitrosamine and Chlorate Support	8	N/A (was covered under WA 3-11)

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The Contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the Contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and

subcontractors are outside the local metropolitan area, the Contractor shall include information on plans to manage work and contract costs.

This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract-level COR (CLCOR) and WACOR if any change to the tasks involving the collection and analysis of data occurs and shall prepare a new SQAPP. Work on new task cannot proceed until the contractor receives notification of the new approval from the EPA CLCOR.

**Deliverables:**

- Work plan
- Monthly progress and financial reports

**Task 1: Provide Administrative, Analytical, and Writing Support**

As directed by the EPA WACOR, the Contractor shall provide administrative, analytical, and writing support to help EPA fulfill its obligations regarding consultations, outreach, options selection, and other tasks as determined by EPA. The Contractor shall provide general support as identified by EPA including: developing fact sheets, presentation materials and visual aids, communication materials, and support documents; providing technical and copy editing services; supporting EPA docket management activities; and conducting literature searches and telephone inquiries. Technical and copy editing includes reviewing documents for technical accuracy, responding to all comments received from EPA (by incorporating changes into the document, or explaining why no action was taken), and ensuring consistency throughout documents.

***Deliverables:***

As directed by the EPA WACOR,

- Consultation and outreach fact sheets, presentation materials and visual aids, communication materials, and support documents and analyses (estimated total of 4-7), as directed by the EPA WACOR
- Additional interim (revised) drafts of any of the above documents, as directed by the EPA WACOR
- Technical and copy editing reviews of documents, as identified by EPA
- Up to two literature search summaries, as identified by EPA

For the purpose of the cost estimate, EPA estimates Task 1 will require 5% of the total technical LOE.

**Task 2: SYR3 Support Documents**

The contractor shall support EPA's development and review of support documents related to the SYR3 of MDBP rules. The specific number and type of support documents are to be identified in a technical directive from EPA. For the purpose of the work plan, the contractor shall assume that there will be separate documents for the following: DBPR support document (covering health effects, treatment, and occurrence), microbial rules support document (covering health effects, treatment, and occurrence), and an issue paper about disinfectant residuals (covering updated information from TCR issue paper). Each of these documents were begun under previous work assignments, with the most recent drafts prepared under WA 3-16. Specific expertise will be provided relevant to the individual support documents.

For each document, the contractor shall prepare a revised draft and a final document. In addition, the contractor shall provide a comment tracking matrix and support to address comments received during a peer review process, should one be requested by EPA. The final documents shall be prepared to include all the data evaluated and considered under this WA (and preceding WAs). It is to be delivered in electronic MS Word format, with a final report delivered in both electronic MS Word format and as a PDF.

*Deliverables (per support document):*

As directed by the EPA WACOR,

- Revised Draft Report
- Comments Tracking Matrix
- Final Report

For the purpose of the cost estimate, EPA estimates Task 2 will require 20% of the total technical LOE.

### **Task 3: Support for SYR3 Occurrence Analysis**

The contractor shall support the analysis of MDBP and related occurrence information based on the SY3 ICR data and other data sources. Under WA 1-04 and 2-04, the contractor prepared an electronic database containing contaminant-specific information for DBPRs and associated PWS inventory information. EPA will review the database and perform its own data analysis with support from the contractor. For example, EPA may task the contractor to review EPA's work and/or perform a portion of the analyses. The specific scope of analyses of these data are to be identified in a technical directive from EPA. For the purpose of the work plan, the contractor shall assume that these efforts will be tracked separately using a similar breakdown as shown for Task 2 (i.e., for the DBPR support document, microbial rules support document, and the disinfectant residuals issue paper).

In addition, the contractor shall provide support for the posting of these data to a public web site. Initial considerations related to data posting were identified in efforts under WA 3-16.

*Deliverables:*

As directed by the EPA WACOR,

- Draft Analytical Results
- Final Analytical Results
- Support for posting SYR3 Data

For the purpose of the cost estimate, EPA estimates Task 7 will require 25% of the total technical LOE.

**Task 4: FRN and Options Support**

The contractor shall support the development and review of a Federal Register Notice (FRN) and related options development and other FRN support activities for the SYR3 of MDBP rules. The specific nature and type of support will be identified in technical direction from EPA, and may consist of technical analyses related to topics in the FRN and options. For the purpose of the work plan, the contractor shall assume that there will be one FRN for SYR3, and that it will be approximately the same length and style as the FRN for the second six-year review. Further, the contractor shall assume that it will contain sections covering the following: DBPRs (e.g., health effects, treatment, analytical methods, and occurrence), GWR (e.g., health effects, treatment, and occurrence), and SWTR (e.g., covering health effects, treatment, analytical methods, and occurrence). Further, this task includes providing support for options development and evaluation related to the six-year review, as specified in a Technical Directive from the EPA WACOR. This task also includes providing support for a public meeting related to the SYR, development of a public docket, and preliminary activities needed to prepare for receipt of comments on the six-year notice. The contractor shall assume that the public meeting will be similar in nature to the one described under WA 3-16, Task 9.

For each support activity/technical analysis, the contractor shall provide EPA with an outline to be approved by EPA, initial draft, revised draft, and final document. The final documents shall be prepared to include all the data evaluated and considered under this WA, and to be consistent with the information in the support documents developed under Task 2 of this WA. It is to be delivered in electronic MS Word format, with a final report delivered in both electronic MS Word format and as a PDF.

*Deliverables (per document):*

As directed by the EPA WACOR,

- Draft Outline
- Draft Report

- Final Report

For the purpose of the cost estimate, EPA estimates Task 4 will require 30% of the total technical LOE.

### **Task 5: Research and Information Collection Partnership Support**

The Research and Information Collection Partnership (RICP) is a group formed following the recommendation of a federal advisory committee, the Total Coliform Distribution System Advisory Committee (TCRDSAC). TCRDSAC's Agreement in Principle (AIP) recommended formation of the RICP to identify priorities for research and information collection on drinking water distribution systems. The current RICP members, called partners, are EPA and the Water Research Foundation (WaterRF). The AIP also specified that the RICP form a Steering Committee.

The Contractor shall revise the Summary Report developed under WA 3-16, Task 8, as needed and format the Summary Report to be 508 compliant. The final document shall be delivered in both electronic MS Word format and as a PDF. The Contractor shall also assist in finalizing a PowerPoint presentation summarizing the information contained in the Summary Report.

#### *Deliverables:*

As directed by the EPA WACOR,

- Updated Summary Report
- Final Report for web publication
- Final PowerPoint presentation

For the purpose of the cost estimate, EPA estimates Task 5 will require 1% of the total technical LOE.

### **Task 6: Emerging Waterborne Pathogens, and Risk Management Approaches Support**

Under this task, the contractor shall support the development and review of documents related to emerging pathogens which may include, but are not limited to, *Legionella spp.*, *Naegleria fowleri*, *Mycobacterium spp.* and *Pseudomonas aeruginosa*. The contractor shall also update the white paper: "Hazard Analysis Critical Control Point (HACCP) Strategies for Distribution System Monitoring, Hazard Assessment and Control", developed under USEPA Contract No. 68-C-02-042, Work Assignment No. 2-06 and available at: [http://www.epa.gov/ogwdw/disinfection/tcr/pdfs/issuepaper\\_tcr\\_haccp-strategies.pdf](http://www.epa.gov/ogwdw/disinfection/tcr/pdfs/issuepaper_tcr_haccp-strategies.pdf). The specific number and type of documents are to be identified in a technical directive from EPA.

For the purpose of the work plan, the contractor shall assume that there will be separate documents for the following: Emerging Waterborne Pathogens (e.g. *Naegleria fowleri*, *Mycobacterium spp.* and *Pseudomonas aeruginosa*) and update to the EPA HACCP white paper. The contractor shall also support the completion of the draft Legionella document developed under WA 2-16 and 3-16 (Task 9), which will include revisions to the interim draft based on peer review input prior to publication on EPA's website. In addition, the contractor shall develop fact sheets, presentations and other communication materials related to the topics described in this task, as directed by the EPA WACOR. Specific expertise will be provided relevant to the individual support documents.

For each document, the contractor shall provide EPA with an outline as directed and to be approved by EPA, initial draft, revised draft, and final document. Documents are to be delivered in electronic MS Word format, with a final report delivered in both MS Word and PDF (508-compliant) formats.

*Deliverables (per support document):*

As directed by the EPA WACOR,

- Draft outline
- Draft Reports (initial and final)
- Final Reports

For the purpose of the cost estimate, EPA estimates Task 6 will require 10% of the total technical LOE.

**Task 7: LT2 Support**

The Contractor shall revise the LT2 Support Document, previously revised under WA 3-16, Task 11, as needed and format the Document to be 508 compliant. The final document shall be delivered in both electronic MS Word format and as a PDF.

**Deliverables:**

As directed by the EPA WACOR,

- Updated Summary Report

For the purpose of the cost estimate, EPA estimates Task 7 will require 4% of the total technical LOE.

**Task 8: Nitrosamine and Chlorate Support**

The Contractor shall revise the Nitrosamine and Chlorate Support Documents (two separate documents), previously prepared under WA 3-11, as directed by the EPA WACOR, and format the Document to be 508 compliant. Revisions might be based on updated literature



sources and additional monitoring data from UCMR3. For the purpose of the cost estimate, the contractor shall assume that 10 literature sources will be included, and three tables related to chlorate monitoring data will be updated with additional monitoring data from UCMR3. The final document shall be delivered in both electronic MS Word format and as a PDF.

Deliverables:

As directed by the EPA WACOR,

- Revised Nitrosamine and Chlorate Support Documents (two separate documents)

For the purpose of the cost estimate, EPA estimates Task 8 will require 5% of the total technical LOE.

#### **G. SCHEDULE OF DELIVERABLES:**

**Deliverable format:** The Contractor shall develop and deliver all documents and/or deliverables in Microsoft Office and/or Adobe Acrobat compatible PDF format unless noted otherwise.

**508 compliance:** The contractor shall ensure that all 508 compliant documents developed in this task and in all tasks outlined in this work assignment will align with EPA's 508 compliance checks (e.g., keywords, titles, tables, and tags). The contractor is responsible for maintaining and using the same version of Adobe as the EPA for purposes of developing and maintaining 508 compliant documents. To the extent practical, documents which are developed for this work assignment, and are to be 508 compliant, should be designed to be such from their inception, minimizing the effort for conversion and maximizing 508 compliance quality assurance.

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. of Copies/Medium</b>
<b>0</b>	Workplan, schedule, staffing plan and LOE estimates for each task	In accordance with contract requirements	In accordance with contract requirements
<b>0</b>	Monthly progress and financial reports	In accordance with contract requirements	In accordance with contract requirements
<b>0</b>	Weekly or Biweekly telephone or email status reports	Weekly/Biweekly each month; starting on the first week of the WA	1 electronic copy, as applicable to the EPA WACOR
<b>1</b>	Consultation and outreach fact sheets – draft	Within 10 business days of EPA identifying specific content	Electronic/hard copies as requested by the WACOR

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. of Copies/Medium</b>
<b>1</b>	Revised draft versions of consultation and outreach fact sheets	Within 5 business days of EPA providing comments on the initial draft(s)	Electronic copies as requested by the WACOR
<b>1</b>	Presentation materials and visual aids (4-7 total) – draft	Within 10 business days of EPA directing the Contractor to start working on the presentation(s)	Electronic/hard copies as requested by the WACOR
<b>1</b>	Revised draft versions of presentation materials and visual aids	Within 5 business days of EPA providing directing the Contractor to start working on the presentation(s)	Electronic copies as requested by the WACOR
<b>1</b>	Communications materials – draft	Within 10 business days of EPA directing the Contractor to start working on the presentation(s)	Electronic/hard copies as requested by the WACOR
<b>1</b>	Revised draft versions of communications materials	Within 5 business days of EPA providing directing the Contractor to start working on the presentation(s)	Electronic copies as requested by the WACOR
<b>1</b>	Support documents and analyses (estimated total of 4-7) – draft	Within 10 business days of EPA directing the Contractor to start working on the analysis	Electronic copies as requested by the WACOR
<b>1</b>	Revised draft support documents and analyses (estimated total of 4-7)	Within 5 business days of EPA providing feedback to the Contractor on the document	Electronic copies as requested by the WACOR
<b>1</b>	Technical and copy editing reviews of documents	Within 5 business days of EPA directing Contractor	Electronic copies as requested by the WACOR
<b>1</b>	Literature search summaries	Within 5 business days of EPA directing Contractor	Electronic copies as requested by the WACOR
<b>2</b>	Revised Draft Reports (per document)	Within 4 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word) as requested by WACOR
<b>2</b>	Matrix for Addressing Comments	Within 1 week of EPA providing comments to the Contractor	Electronic copies (MS Word) as requested by WACOR
<b>2</b>	Final Report	Within 3 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word and PDF versions and electronic Section 508 compliant version as directed by the WACOR)
<b>3</b>	Draft Analytical Results (SYR3 ICR)	Within 2 weeks of TD from the EPA WACOR	Electronic copies (MS Word and/or Excel) as requested by WACOR

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. of Copies/Medium</b>
<b>3</b>	Final Analytical Results	Within 1 week of EPA providing comments to the Contractor	Electronic copies (MS Word and/or Excel) as requested by WACOR
<b>3</b>	Support for Data Posting	Within 2 weeks of TD from the EPA WACOR	Electronic copies (MS Word and/or Excel; or flat files) as requested by WACOR
<b>4</b>	Draft Outline	Within 2 weeks of TD from the EPA	Electronic copies (MS Word) as requested by WACOR
<b>4</b>	Draft Report	Within 3 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word) as requested by WACOR
<b>4</b>	Final Report	Within 2 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word and PDF versions and electronic Section 508 compliant version as directed by the WACOR)
<b>5</b>	Updated Summary Report	Within 2 weeks of TD from the EPA	Electronic copies (MS Word) as requested by WACOR
<b>5</b>	Final Report for web publication	Within 2 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word and PDF versions and electronic Section 508 compliant version as directed by the WACOR)
<b>5</b>	Final PowerPoint presentation	Within 1 week of TD from the EPA	Electronic copies (MS Word) as requested by WACOR
<b>6</b>	Draft Outline	Within 2 weeks of TD from the EPA	Electronic copies (MS Word) as requested by WACOR
<b>6</b>	Draft Reports	Within 2 weeks of TD from the EPA	Electronic copies (MS Word) as requested by WACOR
<b>6</b>	Revised Draft Reports	Within 3 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word) as requested by WACOR
<b>6</b>	Final Reports	Within 2 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word and PDF versions

Task	Deliverable	Due to EPA	No. of Copies/Medium
			and electronic Section 508 compliant version as directed by the WACOR)
<b>7</b>	Updated Summary Report	Within 2 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word and PDF versions and electronic Section 508 compliant version as directed by the WACOR)
<b>8</b>	Revised Support Documents (two separate documents)	Within 3 weeks of EPA providing comments to the Contractor	Electronic copies (MS Word and PDF versions and electronic Section 508 compliant version as directed by the WACOR)

#### **H. LEVEL OF EFFORT ESTIMATES:**

The estimated Level of Effort for this Work Assignment is 7,890 hours.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The Contractor shall immediately notify the EPA Contracting Officer, Contract-level COR and Work Assignment Contracting Officer Representative of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

#### **J. TRAVEL:**

Only local travel is expected from the Contractor to support the work outlined in this work assignment.

#### **K. SPECIAL REPORTING REQUIREMENTS:**

The Contractor shall provide status updates for each task on a weekly or bi-weekly basis, either through a meeting with the EPA WACOR or over the telephone or email.

#### **L. QUALITY ASSURANCE SURVEILLANCE PLAN:**

Per contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-17				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017 Base                      Option Period Number    4			Title of Work Assignment/SF Site Name Pharmaceuticals in Water Workg				
Contractor Cadmus Group, Inc., The					Specify Section and paragraph of Contract SOW Section 1.6 and 1.7					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From 05/01/2016 To 04/30/2017					
Comments: Work Assignment Issuance. Work shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
11/01/2012 To 04/30/2017										
This Action:						830				
Total:						830				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Octavia Conerly						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-566-1094				
						FAX Number:				
Project Officer Name Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				

**PERFORMANCE WORK STATEMENT**  
**Cadmus Contract EP-C-12-023**  
**Work Assignment # 4-17**

**A. TITLE: Developing Prioritization Approaches for Pharmaceuticals and Supporting the Interagency Pharmaceuticals in Water (PIW) Workgroup**

**B. Period of Performance: Effective Date through May 1, 2016 through April 30, 2017**

**C. Work Assignment Contracting Officer's Representative (WACOR)**

Octavia Conerly  
Office of Science and Technology, MC 4304T  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460  
Phone: (202) 566-1094  
FAX #: 202-566-1140  
Email: [conerly.octavia@epa.gov](mailto:conerly.octavia@epa.gov)

**Alternate Work Assignment Contracting Officer's Representative (AWACOR)**

Santhini Ramasamy  
Office of Science and Technology, MC 4304T  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460  
Telephone #: 202-566-1084  
FAX #: 202-566-1140  
Email: [ramasamy.santhini@epa.gov](mailto:ramasamy.santhini@epa.gov)

**D. BACKGROUND**

Pharmaceuticals have been discovered in this nation's ambient waters, wastewater, and drinking water at very low levels. The EPA has four (4) areas of focus to respond to this issue, including improving science through research, improving public understanding, identifying partnership opportunities, and taking regulatory action when appropriate. There are thousands of pharmaceuticals on the market today and still more that are approved periodically. This creates a challenge for the EPA since most of these compounds have limited environmentally relevant data or publically available health effects data. As such, the EPA must determine which of these contaminants or groups of contaminants, if any; potentially pose the greatest risks to public health safety.

To aide in accomplishing this, in December 2008, EPA sponsored a National Academy of Sciences workshop where experts were brought together to provide input on approaches to prioritization and risk assessment for pharmaceuticals. One of the many observations made by the experts was the need for the Agency to move away from the assessment of individual drinking water contaminants and begin to identify groups of contaminants to consider for regulatory determination. Additionally, in 2010, EPA Administrator Lisa Jackson published a new drinking water strategy for the EPA which includes four (4) goals. One of these goals is to address contaminants as groups rather than one at a time so that enhancement of drinking water protection can be achieved cost-effectively.

Due to continued interest in the potential risks to public health caused by the occurrence of pharmaceuticals in sources of drinking water and, in some cases, finished drinking water, four (4) federal agencies (including the EPA) signed a Memorandum of Understanding agreement which will improve coordination and collaboration on issues related to pharmaceuticals in water. Under this agreement, federal agencies will share scientific data and information and coordinate potential future research on the presence of pharmaceuticals in water, their sources and potential health effects. In addition, one of the main actions resulting from this agreement is development of a formal interagency workgroup comprised of representatives from the four participating federal agencies and other federal agencies with responsibilities to address issues related to the occurrence of pharmaceuticals in drinking water and sources of drinking water. The

workgroup will provide a forum to exchange information on health effects (such as pharmaceutical biological activity and toxicology) and occurrence (sources, fate and transport) of pharmaceuticals in drinking water as well as provide a way to facilitate interagency consultation on implications of research and analyses derived from shared information.

In previous efforts, the EPA worked toward developing a process for grouping pharmaceuticals that occur and are likely to occur in drinking water, surface water and other media at low concentrations based largely upon statistical analyses of occurrence data for pharmaceuticals that have been found in water and other media in the United States. These analyses include summary statistics that are useful to assist in prioritization of these compounds. As such, these analyses could also assist the federal interagency workgroup with its activities. This work assignment will continue work to prioritize pharmaceuticals and support activities, as they are defined, by the federal interagency workgroup.

Under work assignments #2-17 and #3-17, draft documents on the API universe and prioritization have been developed. This work assignment will provide a vehicle to finalize these documents. The information from these documents can potentially be used to prioritize monitoring activities, identify data gaps and focus research in support of the Office of Water's broader research coordination and strategy.

## **E. QUALITY ASSURANCE**

Tasks 1 and 2 of this work assignment require the use of secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under Section VI of WA 3-17, consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract Level Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

## **F. TASK DESCRIPTION**

### **Task 0 Prepare a work plan and Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 3-17. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under Section VI of WA 2-17 and 3-17. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP) accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Work plan to EPA WACOR	Per Contract Requirements
Monthly Progress Reports	Per Contract Requirements

### **Task 1 Finalization of the Universe of APIs and Prioritization Approaches for Pharmaceuticals in Water**

The contractor shall finalize work (initiated under GSA-10F-0105J and continued under WA 2-17) on a draft summary report that describes the process for building the universe of active pharmaceutical ingredients (APIs) in addition to

describing various approaches for how these APIs can be prioritized for monitoring activities and other research needs. The report shall also contain discussions for how to define priority API groups (including screening and prioritization approaches from peer-reviewed literature). The WACOR anticipates that the draft report will be completed in iterations (5–10). Therefore, the EPA WACOR anticipates providing comments for each report iteration, when completed. The contractor shall submit the draft report (iteratively) to the WACOR for a series of reviews to be conducted by EPA management and others (as required by management). Compliance with Section 508 will be required based upon EPA/OST managerial decisions regarding report distribution.

Draft iterative report(s)	Three (3) weeks following receipt of each set of comments from the WACOR
Final report	Four (4) weeks following receipt of final comments from the WACOR Five (5) weeks (if 508 compliance is required) following receipt of final comments from the WACOR

## **Task 2 Support to the Federal Interagency Pharmaceuticals in Water (PIW) Workgroup Activities**

The contractor shall provide occurrence data and other information, as directed by the WACOR, to support the Pharmaceuticals in Water (PIW) workgroup. It is anticipated that the workgroup activities will require access to occurrence information, statistical analyses, and other data collected and reports produced as part of this task order and may require additional data analyses by the contractor. Current areas of support include: 1) the creation of life cycle assessment diagrams for the workgroup’s review and approval, 2) assistance to develop outreach material for the workgroup (including frequently asked questions (FAQs), and 3) maintaining the workgroup’s website. The scope of workgroup activities will encompass a broad range of topics related to pharmaceuticals in water that may be of interest to any subset of agencies on the workgroup. In addition, the contractor shall record and distribute minutes for each workgroup meeting, to capture workgroup meeting proceedings and decisions. It is anticipated that the workgroup will not meet more than once quarterly (3 or 4 times/year). The contractor shall submit a draft of the meeting proceedings to the WACOR for review. The WACOR shall provide comments to the contractor. The contractor shall finalize the meeting proceedings after incorporation of the WACOR’s review comments. Compliance with Section 508 will be required based upon EPA/OST managerial decisions regarding workgroup product distribution.

The contractor shall assume that 50% of the overall LOE hours will be required for the work outlined in this task.

Delivery of support material to workgroup	To be determined by WACOR and depends on extent of workgroup request
Draft meeting proceedings to the WACOR	1 week following workgroup meeting
Final meeting proceedings	1 week following receipt of comments from WACOR

## **G. SCHEDULE OF DELIVERABLES**

<b><u>Task</u></b>	<b><u>Deliverable</u></b>	<b><u>Due to EPA</u></b>	<b><u># of Copies</u></b>
0	Work plan	Per Contract	Electronic
	Monthly Progress Reports	Per Contract	Electronic
1	Draft report(s)	3 weeks after comment receipt	1
	Final report	4 weeks after comment receipt	1
2	Support material	TBD	1
	Meeting notes (draft)	1 week after meeting	1
	Final meeting notes	1 week after comment receipt	1

## **H. LEVEL OF EFFORT ESTIMATES**



EPA estimates that 830 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

## **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WACOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

## **J. TRAVEL**

Travel shall include three trips to Washington, DC for various planning and workgroup meetings and review of the analyses and reports with the WACOR as described in the subtasks above.

## **K. SPECIAL REPORTING REQUIREMENTS**

There are no special reporting requirements.

## **L. QUALITY ASSURANCE SURVEILLANCE PLAN**

Per contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-18				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017 Base                      Option Period Number    4			Title of Work Assignment/SF Site Name Watershed Prioritization				
Contractor Cadmus Group, Inc., The						Specify Section and paragraph of Contract SOW Sections C.2.0, 2.1.4, 2.3.1, 3.3, 3.3.1.8				
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From 05/01/2016 To 04/30/2017				
Comments: Initial Work Assignment Issuance. Work shall not commence until May 1, 2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
11/01/2012 To 04/30/2017				0						
This Action:				1,010						
Total:				1,010						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Douglas Norton  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1221 FAX Number:				
Project Officer Name Ronald Coleman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8491 FAX Number:				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name Noelle Mills  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-18**

**A. TITLE: RECOVERY POTENTIAL WATERSHED PRIORITIZATION ASSISTANCE**

**B. PERIOD OF PERFORMANCE:** From effective date through April 30, 2017

**C. WORK ASSIGNMENT COR:** DOUGLAS J. NORTON (4503T)  
EPA Office of Water  
1200 Pennsylvania Ave NW  
Washington, DC 20460  
[norton.douglas@epa.gov](mailto:norton.douglas@epa.gov)  
202-566-1221

ALTERNATE WORK ASSIGNMENT COR: SHERA REEMS (4503T)  
EPA Office of Water  
1200 Pennsylvania Ave NW  
Washington, DC 20460  
[reems.shera@epa.gov](mailto:reems.shera@epa.gov)  
202-566-1264

**D. BACKGROUND:** This Work Assignment will support EPA in assisting Recovery Potential Screening (RPS) efforts in states. Contractor-assisted RPS support from EPA to states dates back to 2005 and has involved projects in many states during the past several years. Many additional projects in new states are anticipated during the coming years due to substantial increases in state priority-setting among watersheds as a state approach to impaired waters restoration and protection planning.

Recovery Potential Screening (RPS) is a technical assessment method for systematically comparing relative restorability among many different impaired waters or watersheds based on multi-metric indices drawn mostly from landscape and monitoring data. The screening is usually performed to identify more restorable waters that are good candidates for restoration investments. The RPS method can be customized to a wide variety of comparative assessment and decision support uses. RPS is applicable for setting priorities among 303(d) listed waters in watersheds, determining the prioritized schedule of Total Maximum Daily Load (TMDL) development, setting priorities for TMDL implementation, and developing other restoration strategies that can be optimized by careful consideration of restorability and its interplay with other factors. RPS has already been utilized in 25 states and thoroughly documented in an EPA website (see [www.epa.gov/rps](http://www.epa.gov/rps)). Among the recent uses of RPS are prioritizing TMDL activities relative to the TMDL 10-year Vision implementation, including the assessment and protection of healthy watersheds.

Most RPS projects are comprehensive, multi-purpose statewide efforts in which EPA and the contractor facilitate identification of the state's intended uses of RPS, identify appropriate metrics, gather and measure data, demonstrate RPS techniques in state workshops, and transfer RPS tools and data products. Projects also can be more narrowly defined, as in the multi-state demonstration of RPS as a general framework for watershed prioritization intended to encourage development and implementation of effective state strategies for managing nitrogen and phosphorus pollution. Either or both types of project may require support under this Work Assignment. Because RPS services are widely in demand, it is also efficient to develop multi-state or even national data and tools rather than repeat data and tool development one state at a time. For this reason, the Work Assignment also contains national data, assessment and tool development support to augment single state projects and make them more efficient.

**E. OBJECTIVE:** The primary goal of this WA is to help EPA provide technical data, tools, and assistance to state water programs who need to systematically set priorities at a watershed level to guide their programs for best results. Below is a task list followed by descriptions of tasks under this Work Assignment that are designed to address this objective. Tasks 1, 2, and 3 constitute most of the level of effort, estimated by EPA as 20% Task 1, 30% Task 2 and 35% Task 3, with Tasks 0 and 4 as the remaining 5% and 10% of the level of effort, respectively. The contractor shall provide RPS support to EPA as described in the Tasks below. All deliverables must be in an electronic format supportable by EPA at the end of the period of performance for this Work Assignment. No hardcopy products are requested.

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**TASK 0. Work Plan and Monthly Progress Reports (5% of effort)**

- 0a. Develop work plan
- 0b. Monthly progress reports per contract requirement

**TASK 1: RPS Project Kickoff, Webinars and Workshops (20% of effort)**

- 1a. Kickoff prep materials and facilitation
- 1b. Workshop materials package development
- 1c. Facilitated onsite workshops
- 1d. Workshop summary materials (metrics and applications of interest)

**TASK 2: Recovery Potential Metrics Compilation (30% of effort)**

- 2a. RPS nationally measured datasets and related measurement tools
- 2b. Project-specific RPS data and tool files
- 2c. Documentation and metadata

**TASK 3: RPS Analysis and Tech Transfer Support (35% of effort)**

- 3a. RPS screening analysis
- 3b. Follow-up analysis product summary
- 3c. Transfer of RPS files and supporting metadata to EPA and state.

**TASK 4: Recovery Potential Tools and Methods Improvements (10% of effort)**

- 4a. RPS website improvements
- 4b. RPS tool enhancements
- 4c. RPS information resources improvements
- 4d. RPS methodology improvements

#### **F. QUALITY ASSURANCE:**

Tasks 2 and 3 in this work assignment requires the use of **secondary** data. Collection, use and analysis of data will follow to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under Task 0 during WA# 2-18 and used without need of update throughout WA#3-18, consistent with the Agency's Quality Assurance (QA) requirements, and appending the Contract Level Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below. In a monthly progress report, the contractor shall provide a QA section to describe this work assignment compliance to the project-specific QAPP, what additional project-specific QA issues have occurred and how these have been addressed. Description of QA compliance must be provided in the final monthly report of this work assignment.

#### **G. TASK DESCRIPTION:**

##### **TASK 0: Work Plan, SQAPP and Monthly Progress Reports (5% of effort)**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

The contractor shall not develop a new SQAPP because the SQAPP used throughout option year 3 is sufficient, because the Statement of Work for this WA continuation is virtually unchanged. Should any unexpected need to update the SQAPP arise during option year 4, the necessary update shall be described and issued by the CO in an Amendment.

This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CLCOR) and WACOR if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract Level QAPP accordingly.

Deliverables: Work plan, and monthly progress and financial reports

**TASK 1: RPS Project Kickoff, Webinars and Workshops (20% of effort)**

The contractor shall support RPS project initiation and workshop or webinar activities as generally described on the RPS website. Supporting a state RPS project may involve conducting a workshop (onsite), a webinar (remote), and/or developing a screening analysis product (see also Task 3). It is the purpose of the kickoff scoping to determine the type of RPS support to be provided and identify whether it will involve a workshop, a webinar, an analysis or a combination of these. Under this task, the contractor shall support kickoff scoping, webinars or workshops for up to 10 projects, including a maximum of 5 workshops.

While EPA does not anticipate the contractor's support to any individual workshop incurring \$20,000 in cost, the contractor shall immediately notify the EPA Contracting Officer, Contract Level Contracting Officers Representative and Work Assignment Contracting Officer's Representative if it anticipates support to such event reaching this cost. Event expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for workshop preparation should be included, but the federal employee time for workshop preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

The EPA WACOR initiates kickoff scoping for each specific state or other client through written technical direction to the contractor. The Contractor then arranges and carries out project kickoff scoping to recommend an approach to the WACOR. The kickoff phase shall involve EPA, contractor and state participants in:

- One to two conference calls and supporting email dialogue to determine scope of the project;
- Development of scoping summary notes that identify the RPS project purpose(s), topics and metrics of specific interest, and recommended support approach; and
- Follow-up communications with WACOR as needed to approve the approach.

In cases where an RPS workshop is part of the recommended support approach, the contractor shall organize and support the workshops in the following manner:

- Coordinate optimum scheduling and state onsite facility arrangements;
- Prepare agenda, handouts and presentation materials;
- Arrange travel for one or two RPS experts (one geospatial) to a state hosted location;
- Facilitate the workshop, including compiling possible RPS applications of interest to the state, providing hands-on training, and identifying relevant recovery potential metrics, data, and screening products;
- Develop a meeting summary product and transfer contractor-generated materials to the WACOR and the state.

Workshops are not automatically always part of the RPS support project assistance, such as when a state's request is simple and narrow in scope and the state possesses some expertise in watershed screening and comparison with RPS or other tools. These types of support may be provided through conference calls and webinars. The contractor shall support webinar-assisted projects by:

- Hosting the webinar and communicating with participants about schedule and agenda;
- Developing any RPS materials needed in advance of the webinar;
- Developing a webinar summary product and transferring contractor-generated materials to the WACOR and the state.

As all 50 states and larger river basins have recently been given the opportunity to receive RPS support from EPA by the development of more universally available data and tools, the final list of the states to be supported under this task cannot be specified at this time. However, CO and AL have already requested support, and kickoff scoping on each of these will be able to determine the specific type of support and choose among workshops, webinars and analytical projects as the appropriate method. More state and river basin requests are to be expected and will be communicated to the contractor through written technical direction from the WACOR.

**Deliverables:** Project kickoff scoping, workshop/webinar prep materials, workshop/webinar summary materials

## **TASK 2: Recovery Potential Metrics Compilation (30% of effort)**

The primary form of data used in RPS support is indicator measurements on a watershed basis, and thus compiling and analyzing indicator values is central to every RPS project. Basically, watershed indicators may be compiled on a project-specific (e.g., state-specific) scale or, where nationally consistent data sources are available, on a national scale to cover numerous states' watersheds with maximum efficiency. Both approaches are covered under this Task.

EPA has developed a Watershed Index (WSI) and national library of watershed indicators that provide a major source of indicators for RPS projects on individual states or other areas. The contractor shall develop and nationally measure up to 150 additional indicators for addition to the WSI indicator data. Each indicator will be either assigned by the WACOR, or recommended by the contractor and approved by the WACOR, in written technical direction. Compilation of each indicator shall involve development of EPA's required metadata documentation, as well as related information routinely compiled in the WSI indicator tables.

On a project-specific level, the contractor shall also compile indicators for use in RPS projects. Many shall come from the WSI with no additional processing needed, but others will be available only from state and affiliated sources and will require additional compilation effort to be brought into the same format as the WSI indicators for RPS usage. The total number of project-specific indicator additions cannot be predicted with certainty at this time, but may average around 20 indicators per project.

In both national-scale and state-scale activities under this task, the contractor will ensure that the compiled indicator data are processed into and/or compatible with the local RPS tools as well as online RPS tools that will be utilized in the screening analyses.

**Deliverables:** Nationally measured indicator data, project-specific data and tools, documentation

### **TASK 3: RPS Analysis and Tech Transfer Support (35% of effort)**

Most RPS support is expected to involve some degree of contractor screening analysis as expert assistance to the state. The most common type of project is likely to be a statewide screening and comparison of watersheds, based on a specific theme of interest (e.g., a common pollutant of concern; a set of watersheds of specific value or interest; a set of restoration or healthy watersheds protection options in need of a strategy and priority order). This task is likely to involve the highest level of effort among this WA's tasks.

Task 3 follows naturally from Task 1's kickoff scoping component when the scoping reveals the state needs a specific form of RPS analysis and its products in support of its watershed planning and prioritization needs. In some cases, the kickoff scoping may determine that the state wishes to do all its analysis unassisted and would prefer only data and a workshop or webinar on its basic usage. In most cases, however, states are expected to want and need expert analytical help from EPA and the contractor shall provide this help in the form of technical products of the screening projects carried out under this task. Task 3 support products may include a workshop or webinar, or may be carried out without either – as determined by the kickoff scoping and subsequent discussions between the states and the WACOR. See Task 1 for more about the scoping, webinars, or workshops.

The EPA WACOR initiates an RPS analysis project for a specific state or other client through written technical direction to the contractor. The contractor shall then design a summary of the approach to be taken to the analysis, and validates this with the WACOR and the state participants. The contractor shall then carry out the analysis involving the RPS scoring tool or equivalent tool, and shall generate a state custom RPS tool and deliver RPS tool copies of specific screening runs that are completed. The contractor may also generate individual maps, rank-ordered tables, and bubble plot graphics as visual byproducts of the screening analyses. Ultimately, each project should yield analytical results that meet the state's request, and these results shall be summarized by the contractor in a brief summary document that can be transmitted to EPA and the state requestor. Upon project completion, the contractor shall organize and transmit the project summary, RPS tool files, and related visuals to the EPA WACOR and the requestor.

Assistance projects may vary in size as approved by the WACOR, but are expected to generally involve 50 to 100 hours of effort to complete (not counting scoping, workshops or webinars, if also involved). A minimum of 5 RPS support projects is expected under this task.



Deliverables: RPS support project design, data files, descriptive summaries

#### **TASK 4: Recovery Potential Tools and Methods Improvements (10% of effort)**

This Task covers contractor support for specific RPS tools/methods improvements authorized by the WACOR only through written Technical Direction. A variety of RPS tools and information resources have been developed over the years to assist state RPS users. Needs to revise and improve RPS tools may arise from time to time, and whereas the need to update a tool or method can be anticipated, the specifics cannot be predicted in advance. Thus, this task describes the main areas of potential improvements at a general level of detail with clarifying details to be provided through Technical Direction that will clarify the details in one or more of the general topic areas discussed below:

##### **A. Website revisions**

The contractor shall support changes as required by the EPA WACOR to correct or improve website content or functionality, if user feedback to EPA reveals any such needs. The RPS website and the WSIO website contain a variety of technical tools and data designed to help states assess and compare the restorability of their impaired waters. These resources include but are not limited to: screening methodology directions, recovery potential indicators lists, indicator reference sheets, a recovery literature database, results plotting tools, index calculation tools, screening project reports and papers, and links to related tools from other websites. If directed, the contractor shall develop content updates, replacements or additions to the website in formats that can be reviewed and approved by the EPA WACOR and then transferred to the EPA website by the WACOR or other qualified editor.

##### **B. Tool enhancements**

Example tools include the RPS auto-scoring spreadsheet and ArcGIS (Geographic Information System) processing methods or tools developed for measuring RPS indicators. If directed, the contractor shall improve the functionality of the recovery potential scoring spreadsheet, the results plotting program, or other existing or new RPS tools that will help RPS users calculate and display their own recovery potential screening results. The most likely assignment to anticipate under this task is to update the RPS scoring spreadsheet tool.

##### **C. Information resources improvements**

Examples of RPS information resources include recovery potential indicators, indicator reference sheets, and the Restoration and Recovery Literature Database (see website). The contractor shall continue adding to the content of existing and/or new indicators and their related indicator reference sheets if directed. The enhancements may include adding more bulletized excerpts from technical publications, measurement technique options for each indicator, and specific URL hot links to commonly available data sources. The contractor shall also incrementally add to the Restoration and Recovery Literature Database, by adding papers used and referenced in the indicator reference sheets; additional papers may be provided by the EPA WACOR or found by the contractor if requested by the WACOR through

technical direction to search the technical literature and other sources. The most recent version of the Database shall be updated prior to the end of the WA project period.

#### D. Methodology improvements

The contractor shall revise and improve specific components of the screening methodology if directed. Examples of methodological components that may be selected for improvement are: brief written directions for correlation analysis among the indicators; a brief written approach for weighting indicators; a brief written account of statistical applications that could be used with screening results; and, other small methodological components that can be improved.

Deliverables: Updated RPS tool versions and supporting documentation

#### H. SCHEDULE OF DELIVERABLES:

Task	Deliverable	Due to EPA	No of Copies/Medium
Task 0			
0.1	Work Plan	Per Contract requirements	Electronic file
0.2	Monthly Reports	Per contract requirements	Electronic file
Task 1			
1.1	Project kickoff scoping	<30 days of WACOR TD	Electronic file
1.2	Pre-workshop package	<30 days of scoping	Electronic file
1.3	Workshops (5) and webinars	As directed by the EPA WACOR	N/A
1.4	Workshop summary materials	<15 days after event	Electronic file
Task 2			
2.1	National indicator data/ metadata (30)	As directed by the EPA WACOR via TD	Electronic file
2.2	Project-specific data/ metadata (5)	As directed by the EPA WACOR via TD	Electronic file
Task 3			
3.1	Support projects (5) design	<30 days of WACOR TD	Electronic file
3.2	Support project summary	<90 days of WACOR TD	Electronic file
3.3	Support project tools and data	<90 days of WACOR TD	Electronic file
Task 4			
4.1	Updated RPS tool file	As directed by the EPA WACOR via TD	Electronic file
4.2	Updated RPS tool documentation	As directed by the EPA WACOR via TD	Electronic file

**I. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 1,010 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

**J. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, Project Officer and Work Assignment Manager of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer. Contractor is not expected to approach or exceed this cost in routine RPS workshops, which are small and of short duration.

**K. TRAVEL:** Contractor travel will be necessary in the completion of this WA's tasks. An estimated eight person-trips averaging two nights each is anticipated.

For planning purposes these trips shall include:

Madison, WI to Washington DC (2)

Madison, WI to Atlanta GA (2)

Madison, WI to Denver CO (2)

Madison, WI to Shepherdstown, WV (1)

Madison, WI to Birmingham, AL (1)

Travel to the destinations listed will require approval of the WACOR per contract requirements. If destinations change the contractor will be notified by the WACOR and new destinations provided as needed through written technical direction.

**L. SPECIAL REPORTING REQUIREMENTS: N/A**

**M. QUALITY ASSURANCE SURVEILLANCE PLAN: Per Contract requirements**

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number                      4			Health Effects Screening Pharm				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW Section 1.6 and 1.7					
Purpose:					Period of Performance					
<input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval					From 12/07/2016 To 04/30/2017					
Comments: This action approves the Contractor's Amendment 2 work plan as submitted and provides full funding in the amount of \$45,623.00. As result of this and prior funding actions, the total funded value of the work assignment is \$100,389.00.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		\$54,766.00		LOE:		370		
11/01/2012 To 04/30/2017										
This Action:				\$45,623.00				350		
Total:				\$100,389.00				720		
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:		12/21/2016		Cost/Fee		\$45,623.00		LOE:		350
Cumulative Approved:				Cost/Fee		\$100,389.00		LOE:		720
Work Assignment Manager Name Octavia Conerly						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-566-1094				
						FAX Number:				
Project Officer Name Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name Erin Ridder						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2155				
						FAX Number:				
Contracting Official Name Donna Reinhart						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2114				
						FAX Number:				

Work Assignment Form. (WebForms v1.0)

**DONNA**  
**REINHART**

Digitally signed by DONNA REINHART  
 DN: c=US, o=U.S. Government,  
 ou=USEPA, ou=Staff, cn=DONNA  
 REINHART, dnQualifier=0000010546  
 Date: 2016.12.28 13:30:00 -05'00'

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT #EP-C-12-023  
WORK ASSIGNMENT # 4-19**

**A. Title: Health Effects Screening Approaches and Human Health Benchmarks for Pharmaceuticals**

**B. Period of Performance:** May 1, 2016 through April 30, 2017

**C. Work Assignment Contracting Officer's Representative (WACOR)**

Octavia Conerly  
Office of Science and Technology, MC 4304T  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460  
Telephone #: 202-566-1094  
FAX #: 202-566-1140  
Email: [conerly.octavia@epa.gov](mailto:conerly.octavia@epa.gov)

**Alternate Work Assignment Contracting Officer's Representative (AWACOR)**

Santhini Ramasamy  
Office of Science and Technology, MC 4304T  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460  
Telephone #: 202-566-1084  
FAX #: 202-566-1140  
Email: [ramasamy.santhini@epa.gov](mailto:ramasamy.santhini@epa.gov)

**D. BACKGROUND**

Pharmaceuticals have been discovered in this nation's ambient waters, wastewater, and drinking water at very low levels. EPA has a strategy to respond to this issue, including improving science through research, improving public understanding, identifying partnership opportunities, and taking regulatory action when appropriate. There are thousands of pharmaceuticals on the market today and still more that are approved daily. This creates a challenge for the Agency since most of these compounds do not have environmentally relevant data or publically available health effects data. Therefore, as a part of our strategy, EPA is examining ways to screen a broad range of pharmaceuticals based upon health benchmark indicators, structure similarities, class of compound, etc.

In December 2008, EPA sponsored a National Academy of Sciences (NAS) workshop where experts were brought together to provide input on possible prioritization and risk assessment approaches for pharmaceuticals. This work assignment is follow-up work resulting from the workshop.

Also, due to continued interest in the potential risks to public health caused by the occurrence of pharmaceuticals in sources of drinking water and, in some cases, finished drinking water, four (4) Federal agencies (including the EPA) signed a Memorandum of Understanding agreement

which will improve coordination and collaboration on issues related to pharmaceuticals in water. Under this agreement, Federal agencies will share scientific data and information and coordinate potential future research on the presence of pharmaceuticals in water, their sources and potential health effects. In addition, one of the main actions resulting from this agreement is development of a formal interagency workgroup comprised of representatives from the four participating Federal agencies and other Federal agencies with responsibilities to address issues related to the occurrence of pharmaceuticals in drinking water and sources of drinking water. The workgroup will provide a forum to exchange information on health effects (such as pharmaceutical biological activity and toxicology) and occurrence (sources, fate and transport) of pharmaceuticals in drinking water as well as provide a way to facilitate interagency consultation on implications of research and analyses derived from shared information. Although the direction that the workgroup will take is uncertain, the analyses, reports and data collected under this work assignment could help to facilitate the path of the Federal interagency workgroup's activities. Therefore, the contractor should be prepared to support the EPA WACOR when necessary.

In a series of previous work assignments under a different contract vehicle (WA#1-03, 2-03 and 3-03 with ToxServices LLC), a draft paper was developed. During this current work assignment, the draft paper will be finalized and published (depending upon journal acceptance). It provides a vehicle to further develop and refine a process for screening pharmaceuticals based on health benchmark indicators and applying this process to four pilot groups of pharmaceuticals using health effects data from the Food and Drug Administration (FDA). This process should allow EPA to screen out as well as prioritize groups of compounds.

As part of this work, EPA has evaluated several screening/prioritization approaches and performed calculations of margin of exposure (MOE) values to compare to screening Reference doses (s-RfDs) and screening Maximum Recommended Safe Doses (s-MRSDs); compared these health measures to the third Contaminant Candidate List (CCL3) results for severity and potency attributes; and compared calculations (s-RfD, s-MRSD, MOE) for each of the 4 groups of drugs; and compared these results to other approaches from the peer-reviewed literature. As necessary, EPA will continue to investigate other prioritization approaches to develop a prioritization process for groups of compounds and include this information in the paper.

Based on EPA's evaluation of various prioritization approaches and health effects data for the 4 groups of drugs, it was determined that this data could be used to develop human health benchmarks that could aide in prioritizing groups of pharmaceuticals for research. Under WA#3-19, benchmarks for 22 pharmaceuticals were developed. Under this work assignment, the contractor shall develop human health benchmarks, based on health data from FDA, for a select group of pharmaceuticals (approximately 20) which have been found in water or selected as priority contaminants in water.

## **E. QUALITY ASSURANCE**

Tasks 2 and 4 of this work statement require the use of secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under Task 0 of WA 2-19 and 3-19 consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract

Level Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

## **F. TASKS DESCRIPTION**

### **Task 0 Prepare a work plan and Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 3-19. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under task 0 of WA 3-19. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs' broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

#### **Deliverables:**

Work plan & monthly progress & financial reports submittal	In accordance with Contract requirements
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### **Task 1 – Revisions to Final Draft Paper on Approaches to Screening (based on health effects)**

After the receipt of comments on the draft paper from the EPA WACOR, the contractor shall revise the draft pharmaceutical paper based on the EPA WACOR's comments and submit the revised draft to the EPA WACOR for review. After receipt of the EPA WACOR's comments (if any), the contractor shall address these comments and submit the newly revised version to the EPA WACOR for a second review. If the EPA WACOR has no comments, this version will serve as the final paper. Compliance with Section 508 will be required based upon EPA/OST managerial decisions regarding paper distribution.

#### **Deliverables:**

First revised draft paper	2 weeks following receipt of EPA WACOR's comments
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Second revisions to draft (if any)	2 weeks following receipt of EPA WACOR's comments
Final paper	2 weeks following receipt of EPA WACOR's comments 3 weeks if 508 compliance is required

## **Task 2 – Development of Human Health Benchmarks**

The contractor shall analyze health data from pharmacology profiles supplied by FDA and other supplemental data from peer-reviewed journals and make recommendations to the EPA WACOR as to whether human health benchmarks can be developed from the data. (The EPA WACOR will provide literature searches for each chemical of peer reviewed journals to the contractor.) The contractor shall create a table that will include a breakdown (study type, # of animals, dose levels, study duration, No Observed Adverse Effect Level (NOAEL), Lowest Observed Adverse Effect Level (LOAEL) (if identified), other information relevant to the evaluation of the study) of each study included in the pharmacology profile and any peer-reviewed studies for each chemical and indicate whether the study would support development of a human health benchmark for that chemical. Upon completion, the contractor shall submit the table to the EPA WACOR.

The EPA WACOR shall review the table of information and discuss the findings with the contractor. At the EPA WACOR's direction, the contractor shall develop draft human health benchmarks for chemicals that have been determined to have adequate health data. The contractor shall carefully document (using a systematic narrative format) details of the criteria used to select the critical study, uncertainty factors, relative source contribution, and values such as, body weight and drinking water consumption rates. The contractor shall submit the draft benchmarks and the narratives to the EPA WACOR for comment. Following the EPA WACOR's review, the EPA WACOR shall submit the draft benchmarks and the narratives to the contractor for finalization.

For guidance, the contractor shall refer to the human health benchmarks home page (<http://iaspub.epa.gov/apex/pesticides/f?p=HHBP:home>) that EPA's Office of Water developed for pesticides. Using the fact sheet prepared for the human health benchmarks for pesticides as a reference, the contractor shall prepare a fact sheet for the human health benchmarks for pharmaceuticals (HHBPhs). An example of the fact sheet can also be found at <http://iaspub.epa.gov/apex/pesticides/f?p=HHBP:home>.

<b>Deliverables:</b>	
Table of Studies to EPA WACOR for review	2 weeks following analysis of pharmacology profiles and receipt of literature search results from the EPA WACOR
Discussion of Findings w/ EPA WACOR	1 week after delivery of the Table of Studies to the EPA WACOR
Draft HHBPhs and documentation of the development process	3 weeks following the discussion of findings with the EPA WACOR



Finalization of benchmarks and narratives	2 weeks following receipt of EPA WACOR's comments
Draft Fact Sheet	1 week after finalization of benchmarks and narratives
Final Fact Sheet	1 week following receipt of EPA WACOR's comments

### **Task 3 – Publication of Paper**

As directed by the EPA WACOR, once the paper has been finalized (in Task 1) and undergone an internal EPA/Office of Water review process, the contractor shall prepare the final paper for submission to peer reviewed journals (up to five (5), all determined by the EPA WACOR) and, if accepted, for journal publication. EPA will be responsible for any associated journal fees. The contractor shall prepare the document according to the respective journal's formatting and submission requirements. These requirements will be provided to the contractor by the EPA WACOR. If the paper is accepted for publication and if necessary, the EPA WACOR will provide review comments from the journal to the contractor. After discussing the comments with the EPA WACOR, the contractor shall incorporate comments (as appropriate) and submit the revised paper to the EPA WACOR. It is anticipated that this process may include more than one round of comments from the journal resulting in additional rounds of revisions by the contractor.

#### **Deliverables:**

Submission of publication-ready paper to EPA WACOR	Dependent upon individual and/or journal's requirements & deadlines
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### **Task 4 – Support to Federal Interagency Pharmaceuticals in Water (PIW) Workgroup**

As directed by the EPA WACOR, the contractor shall submit health effects data and other information to the EPA WACOR to support activities of the PIW workgroup. It is anticipated that the workgroup activities will require access to health effects information and other data collected and reports produced as part of this work statement and may require additional data analyses by the contractor. The scope of workgroup activities will encompass a broad range of topics related to pharmaceuticals in water that may be of interest to any subset of agencies on the workgroup. It is anticipated that the workgroup will not meet more than once quarterly (3 or 4 times/year). As directed by the WACOR, the contractor shall support the workgroup. The EPA WACOR will provide workgroup support requests (to include requests for previously-collected health effects information and other analyses or data collected; also to include any new analyses within reasonable resource allocations) to the contractor. For planning and resource estimate purposes, the contractor shall assume 25% of the LOE will be required for this task.

#### **Deliverables:**

Response to workgroup requests	Case-by-case basis. In general, 4 weeks following EPA WACOR's request
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## **/G. SCHEDULE OF DELIVERABLES**

<b><u>Task</u></b>	<b><u>Deliverable</u></b>	<b><u>Due to EPA</u></b>	<b><u># of Copies</u></b>
0	Work Plan	Per Contract Requirement	Electronic
	Monthly Report	Per Contract Requirement	Electronic
1	Revised Paper	2 weeks after receipt of EPA WACOR comments	1
	Second Revision	2 weeks after receipt of EPA WACOR comments	1
	Final Paper	2 weeks after receipt of EPA WACOR comments (3 weeks if 508 compliance is required)	1
2	Table of Studies	2 weeks following FDA & published literature data review	1
	Findings Discussion	1 week after delivery of Table of Studies to WACOR	1
	Draft HHBPhs	3 weeks after discussion	1
	Final HHBPhs	2 weeks after receipt of WACOR comments	1
	Draft Fact Sheet	1 week after finalization of HHBPhs	1
	Final Fact Sheet	1 week after receipt of WACOR comments	1
3	Paper Publication	Submission of paper	1
4	Response to PIW Workgroup requests	No later than 4 weeks after WACOR Request (depending on request)	1

## **H. LEVEL OF EFFORT ESTIMATES**

EPA estimates that 370 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

## **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium,

retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

## **J. TRAVEL**

Travel shall include two trips to Washington, DC for various planning and workgroup meetings and review of the analyses and reports with the WACOR as described in the subtasks above.

## **K. SPECIAL REPORTING REQUIREMENTS**

There are no special reporting requirements.

## **L. QUALITY ASSURANCE PERFORMANCE SURVEILLANCE PLAN:**

Per Contract Requirements

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-20				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Managemant Dashboard				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW Section: 2.1,2.1.1, 2.4.3, 2.4.4, 3.0, 3.2.2, 3.3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   05/01/2016   To   04/30/2017					
Comments: Initial Work Assignment Issuance										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
11/01/2012   To   04/30/2017				0						
This Action:				363						
Total:				363						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Yulia Kalikhman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1534 FAX Number:				
Project Officer Name   Ronald Coleman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8491 FAX Number:				
Other Agency Official Name   D'Andre Boulden  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Sandra Stargardt-Licis  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2006 FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-20**

**A. TITLE:** Completion of Programmatic and Management Performance Tools

**B. PERIOD OF PERFORMANCE:** Effective Date through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WACOR):**

Yulia Kalikhman  
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Email: kalikhman.yulia@epa.gov

**ALTERNATE ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWACOR):**

Agnes M. Ortiz  
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**D. BACKGROUND**

The Office of Science and Technology (OST) provides science, engineering and program support to promote the protection of public health and water resources under the auspices of the Safe Drinking Water Act and the Clean Water Act. OST manages extensive resources including about 130 (full-time employees (FTEs) and an extramural budget of upwards of \$20M annually. Ensuring the effective management, integrity and utilization of these resources is a critical role of the OST Management and Administrative Team.

The purpose of this work assignment is to complete a new suite of programmatic and management tools to demonstrate progress and performance in implementing our Drinking Water, Surface Water Protection, and Beach Fish programs and resources to address EPA and OW work priorities. Initial work was conducted under PWSs2-20 and 3-20, this is an extension of time to complete the project. OST receives Drinking Water funds to develop scientific assessments to support the Office of Ground Water and Drinking Water (OGWDW)'s regulatory agenda. The new suite of programmatic and management tools and dashboards will be shared with OW and all OW offices to keep them updated.

This work transcends several different elements and themes that are provided for in the Contract Performance Work Statement:

- 2.1 Policy and Program Implementation Support
  - o 2.1.1 Gathering and Presenting Data/Information
  - o 2.4.3 Strategic Development
  - o 2.4.4 Implementation
- 3.0 Information Management and Technology Tools
  - o 3.2.2 Programmatic Data Analyses
  - o 3.3.1 Programmatic Technology Tools

#### **E. QUALITY ASSURANCE (QA):**

The fulfillment of this work assignment does not require direct environmental measurements or the use of environmental data. The activities in this work assignment involve designing and developing dashboard programmatic management tools for gathering, evaluating, analyzing, and otherwise using existing resource data (also known as “secondary” use of data). EPA will provide the data for dashboard development and maintenance. EPA has determined that the Contractor is operating under an existing PQAPP (generic Quality Assurance Project Plan (QAPP)) and that the PQAPP does not specifically address QA requirements for this work assignment. EPA has determined the contract-level Quality Assurance Project Plan does not address Quality Assurance requirements for this work assignment.

Specific QA requirements. In support of this work assignment, the Contractor shall ensure that the work plan provides enough detail to clearly describe:

- Specific objectives of the project(s) supported by this work assignment, including typical questions that must be answered when amalgamating existing sources of data that will be contemplated for evaluating or creating new dashboards on other than the examples provided by EPA WACOR attached to this work assignment. Objectives must include specific metrics for accuracy, completeness, comparability for data to be loaded into excel spreadsheets and timeliness. These excel spreadsheets should be designed for continuous accurate data input and update for real time OW review. The data generated in Excel spreadsheet should be compatible with other format of Microsoft Office Suite including Word, Power Point, Access, etc for presentation & documentation. The contractor must explain all best practices for quality assurance that will be used for any and all the tasks associated with this work assignment with enough specificity so that the WACOR will be able to assess their appropriateness and applicability to the work activities under this work assignment.
- The search engines (or databases), the search terms, the type of information to be gathered or used under this work assignment to support the project objectives—including information from search engines, federal databases, EPA databases—as a well as a rationale for when those databases are appropriate and what information is available in each to support the project. EPA requires that the contractor fully documents the source, date, and any important considerations for comparability or gaps that the source may describe, including the accuracy and reliability of the information or the usefulness of the approach, and discusses potential data quality issues with the EPA WACOR as soon as they arise.
- The quality objectives needed and identified by the contractor must ensure the information will support the project objectives.

- The QA/QC activities to be performed must ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed and that the Cadmus SOPs that will be used to support this project are identified. Any procedures including readily available CADMUS SOPs for data management and dashboard development that the contractor will use must be provided to the EPA WACOR and accepted by the WACOR before work is to begin on Task 2. The contractor may designate portions of the its SOPs as proprietary but must provide both a redacted (specifics claimed proprietary only) and unredacted versions at the time of the work plan submittal. If the contractor has no SOPs, the contractor as part of the work plan submittal must include the specifics that would explain the activities( literature search, development of Excel Spreadsheets etc) and how those activities will be performed to ensure the quality of the work under the work assignment.
- The contractor must specify if any of the work is proprietary. The contractor must include macros in the final work product, and provide EPA with user manuals and necessary training to assist with independent operation and maintenance of the dashboards upon project completion.

#### **F. TASK DESCRIPTION:**

EPA must continually refine its approach to improving environmental program management and accountability. This also generally fits with the Administrator's theme of becoming a High Performing Organization (HPO).

The Office of Water conducts a Mid-Year and End of Year Performance Evaluation of OST and the other OW offices. This twice per year review looks at an array of programmatic and management information, but it is not complete or comprehensive. In addition, the OW review is not timely, often occurring long after when appropriate corrective action should have been taken. The review also represents limited snapshots in time.

#### **Objectives of the Programmatic and Management Performance Tools and Dashboards**

These programmatic and management tools and dashboards are intended to achieve many objectives, including:

- Support effective utilization and management of Drinking Water, Surface Water Protection, and Beach-Fish funds
- Demonstrate meaningful programmatic progress using appropriate metrics
- Create a consistent approach and framework for articulating critical information
- Establish a comprehensive suite of measures to demonstrate the effectiveness of OST
- Create visual representations of progress toward clear targets or goals that depict progress over time (where appropriate) for critical measures
- Build and expand upon the existing OW Measures
- Drive the organization to a more measure and outcome oriented culture
- Create responsibility, accountability and empowerment for managers and staff to "own" key aspects of OST's business
- Foster transparency as a key means to improve management focus and foster change

- Promote adaptive management and continual improvement
- Create a deeper understanding of key performance measures for each of the critical business areas that profoundly influence the effectiveness of programmatic outcomes.

### **Key Audience for the Management Tools and Dashboards**

The management tools and dashboards are designed to address the needs of OST management (e.g. Division Director, Office Director) to have a clear, easy and routine means of assessing programmatic and management performance against a clear set of objectives and outcomes. The management tools and dashboards are also intended to continually enhance performance by constantly assessing and adapting to new strategies and actions. It is believed that the Management Dashboards will foster greater efficiency and focus our diminishing resources on the highest priorities by clarifying and simplifying how we manage and report key information to senior management.

### **Tasks**

#### **Task 0: Work Plan and Monthly Progress Reports**

The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs. In addition, the contractor shall acknowledge in the work plan that a supplemental quality assurance project plan is not required. All direction with the contractor will be provided by the EPA WACOR (or AWACOR) and communications with other project personnel, will be limited to technical communications.

#### **Task 1: Complete Design/Redesign of the OST Management Tool and Dashboard Template(s)**

The contractor shall continue developing revised and enhanced dashboard template(s). EPA provided examples of current dashboards to the contractor under WA 2-20 and discussed strengths and weaknesses.

Under this work assignment (4-20) the contractor shall follow-up on feedback received from both staff and OST management to complete designs for priority and new dashboards. The new version of dashboards needs to achieve the next level of articulation, clarity, brevity, and focus on the critical programmatic and management outcomes and measures. Given the intended conciseness of the dashboard (one page front and back maximum), every word and graphic must have specific criticality and be relevant.

The revised and enhanced dashboard template shall be designed as a relatively simple and consistent presentation of the measure and progress to achieve a clearly articulated goal. Taken together, the entire suite of dashboards tell a complete story of OST's programmatic and management efforts.



The dashboards shall include the following elements:

- Title - short title of the measure
- Objective/Outcome - clearly stated desired objective/goal (the end state)
- Narrative – very brief narrative description of the relevance of the measure
- Visual display - visual representation (e.g. graph) that includes the baseline (e.g. current) condition, existing progress, and the desired longer term outcome
- Clear Indication of “Status”
- Historical Trends – Visual representation may include historical data for the measure
- Strategies - brief narrative description of the OST strategies and actions being pursued to achieve the outcome
- Data Source – brief description of the origin/data sources for the information in the dashboard
- Frequency of Refresh – Frequency the data/information is updated on the dashboard (e.g. monthly, quarterly)
- Measure Owner – name of the OST staff person who “is responsible for maintenance of the dashboard”
- Last Updated – a clear indication of when the dashboard was last updated (e.g. version and date)

EPA’s project and management staff’s communication with Cadmus will be limited to technical communications with Cadmus. All technical direction from EPA will be given by WACOR and AWACOR.

#### Task 2: Development of the Management Tools and Dashboards

The contractor shall proceed to build the dashboards using the template established in Task 1. Some adaptation may be needed to the basic template. Below is the list of dashboards. In addition, the contract shall proceed with the development or completion of the 2<sup>nd</sup> tier dashboards (dashboards # 5-10).

1. Fund Utilizations (Commitment, obligations, travel, expenditures)
2. Socio Economic Performance
3. Contract Management (Available Vehicles, Scope and Expiration Dates, Status and Burn Rates, Invoice Rates)
4. Human Resources (Workforce, FTE Utilization, Historical Attrition, Telework (TW), Individual Development Plan (IDP), Interns)
5. Ethics Determinations
6. IT (Network and Personal Printers, Mobile Devices, Paper Usage)
7. Maintenance and Performance Stats
8. Facilities (Space Utilization)
9. Working Capital Fund (Totals and Cost per Capita)
10. Emergency Preparedness
11. Time and Attendance Accountability
12. Supplies Expenditures

All direction with the contractor will be provided by the EPA WACOR (or AWACOR in the absence of the WACOR) and communications with other project personnel, will be limited to technical communications.

#### Task 3: Article and PowerPoint (PPT)

The contractor shall support EPA's development of an article and PowerPoint to describe the OST Dashboards as a tool and driver of focus and performance. The length of the article should be discussed and agreed with the EPA WACOR. The length of the PowerPoint presentation shall be in a range between 10 - 15 slides. The article and PPT will be primarily used to portray the effort to other EPA partners. All direction with the contractor will be provided by the EPA WACOR (or AWACOR) and communications with other project personnel, will be limited to technical communications.

#### Task4: Dashboard Documentation

The contractor shall prepare a simple "Users Guide" for the OST Management Dashboards that compiles critical information about the dashboards. In particular, the user's guide will explain the Meta data that underlies each dashboard and where the data is obtained and how that data is compiled. The contractor shall develop an outline for the Users Guide for approval by the EPA WACOR. At a minimum, the User Guide should include: table of content, relevant information on data sources, address each dashboard, provide instructions on how to update information and make any revisions if needed; provide examples and figures illustrating the step by step instructions, and dos & don'ts. All direction with the contractor will be provided by the EPA WACOR (or AWACOR) and communications with other project personnel, will be limited to technical communications.

### **G. SCHEDULE OF DELIVERABLES:**

Task	Deliverable(s)	Due to EPA	#s of Copies/Medium
0	<b>1. Workplan</b> <b>2. Monthly Progress Reports</b>	1. Per Contract requirements 2. Per Contract Requirements	1. Word File 2. Word File
1	<b>Complete Templates Designs/Redesigns</b> Priority dashboards  New dashboards	June 15, 2016  July 30, 2016	Word/PPT
2	<b>Draft &amp; Final Dashboards</b> Draft Dashboards  Final dashboards	August 14, 2016  August 25, 2016	Word File/Excel/Compatible with Microsoft Office 2013

3	<b>White Paper/Article/PowerPoint</b> Draft	Sept 30, 2016	Word File/Excel/Compatible with Microsoft Office 2013
	Final	October 30, 2016	
4	<b>Dashboard Documentation/User Guide</b> Draft	October 30, 2016	Word File/Excel/Compatible with Microsoft Office 2013
	Final	November 20, 2016	

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 363 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, Contract Level Contracting Officer's Representative and Work Assignment Contracting Officer's Representative of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** . Only local travel required

**K. SPECIAL REPORTING REQUIREMENTS:** No special requirement.

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** - "Per Contract requirements."

Work Assignment Form. (WebForms v1.0)

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-21**

**A. TITLE:** Technical Support for the Regulations Implementing SDWA Section 1417: Prohibition on Use of Lead Pipes, Solder, and Flux

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Erik Helm  
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(202) 564-3758 (fax)  
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**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Brian D'Amico  
OW/OGWDW/SRMD (4607M)  
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(202) 566-1069  
(202) 564-3758 (fax)  
[damico.brian@epa.gov](mailto:damico.brian@epa.gov)

**D. BACKGROUND:**

The Reduction of Lead in Drinking Water Act was enacted on January 4, 2011 to amend Section 1417 of the Safe Drinking Water Act (SDWA or Act) regarding the use and introduction into commerce of lead pipes, plumbing fittings or fixtures, solder and flux. The Act established a prospective effective date of January 4, 2014, which provided a three-year timeframe for affected parties to transition to the new requirements. The Community Fire Safety Act of 2013 further amends Section 1417 to exempt fire hydrants. EPA in December of 2013 developed a summary document of answers to frequently asked questions that is intended to help the public understand the statutory requirements of the two pieces of legislation. EPA intends to further clarify and refine these statutory requirements in a new rulemaking.

The purpose of this work assignment is to support EPA's clarifications and extensions to the RLDWA in a separate rulemaking, the Regulations Implementing SDWA Section 1417: Prohibition on Use of Lead Pipes, Solder, and Flux. The work outlined in this work assignment is a continuation of the efforts initiated in WA 0-08, 1-08, 2-21 and 3-21, and supports this new EPA Reduction of Lead in Drinking

Water Implementation Rulemaking by providing the Agency with cost assessment, benefit assessment, and other technical assistance.

#### **E. QUALITY ASSURANCE:**

Tasks 1, 2, 3 and 4 in this work assignment requires the use of secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under Task 0 of WA 0-08. EPA has determined that this approved SQAPP is appropriate for the tasks outlined in this Performance Work Statement. Based on this determination, the contractor is not required to modify the approved SQAPP for this action.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-08, 1-08, 2-21 and 3-21. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under task zero of WA 0-08. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Deliverables: Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

##### **Task 1: Updating the Costing Data and Analyses**

The contractor, upon receiving technical direction from the EPA WACOR, shall update the costing data and analysis that was conducted in WA 2-21 and 3-21 under this contract. The EPA WACOR will be

supplying the contractor with a set of questions and comments on the draft analysis documentation that was produced under the previous work assignment. The analyses which may be updated include: the number of firms, amount of production and business projections for the industry; the cost for labeling plumbing product packages and marking the plumbing products themselves; the cost of self and third party certification; and, the national level cost estimates for labeling and certification for both potable and non-potable.

Once the EPA WACOR provides revisions and/or comments to the contractor, the contractor shall incorporate the changes into the draft cost analysis spreadsheets.

Under this task, the cost analysis spreadsheets may also need to be revised further in response to public comments, changes in the technical data, comments from OW management, and agency workgroup members, as well as changes to the proposed rule regulatory options and/or technology efficacy results. These changes are expected to occur in several waves as the proposed rule moves through the agency review process. All changes will be given to the contractors by written Technical Direction. After each set of significant revisions initiated by technical direction, the contractor shall supply that spreadsheet to the EPA WACOR for further review.

The cost analysis and documentation will be due at the time of the Administrator's Signature of the Proposed Regulations Implementing SDWA Section 1417: Prohibition on Use of Lead Pipes, Solder, and Flux, currently scheduled for August 2016.

Deliverables: For work planning purposes, up to 2 draft cost analysis spreadsheets may be required. The contractor should assume three iterations of each draft document: 2 drafts and 1 final draft.

## **Task 2 – Development of new economic costing methodologies**

It may be necessary to make significant changes and updates to the existing costing methodology or databases, and explore new types of analysis. The exact nature and timing of these changes cannot be foreseen at this time. The contractor shall make significant changes to existing methodology or databases or exploration of new lines of inquiry by following the process outlined below:

- (1) The EPA WACOR will issue written technical direction to the contractor to produce a short memorandum, table, or PowerPoint outlining the details of the new analysis required. The length of the document is expected to be less than 5 pages unless otherwise specified.

- (2) Once the EPA WACOR has reviewed the document and a determination is made as to whether to move forward with the changes to existing methods or data or conduct a new analysis, the EPA WACOR will give written technical direction to the contractor. If determined by EPA that new work should be conducted then the technical direction will include any EPA changes to the contractor's proposed approach and specific deadlines for completion of the work.

Deliverables: Although a precise number of these potential significant changes to the existing methodology or databases, and/or explorations of new types of analysis cannot be given at this time, EPA expects that 2 significant changes to the existing methodology or databases, and new types of analysis will be required. The general time frame for the new analysis “scoping” deliverables will be on the order of 7 days after issuance of technical direction.

### **Task 3: Revisions to the Technical Support Document (TSD) Draft Chapters for the Economic Costs, Impacts, and Benefits**

Under this task, the contractor, based on written technical direction from the EPA WACOR, shall revise the draft Technical Support Document draft chapters that were originally drafted under WA 3-21.

The TSD will contain the assessment of the three to five proposed rule options which are to be determined through the EPA Office of Water proposed rule process. These primary options will be defined by written Technical Direction.

Once the EPA WACOR provides revisions and/or comments to the contractor, the contractor shall incorporate the changes into the draft TSD report chapters.

Under this task, the draft TSD report chapters may also need to be revised further in response to public comments, changes in the technical data, comments from OW management, and agency workgroup members, as well as changes to the proposed rule regulatory options and/or technology efficacy results. These changes are expected to occur in several waves as the proposed rule moves through the agency review process. All changes will be given to the contractors by written Technical Direction. After each set of significant revisions initiated by technical direction, the contractor shall supply that portion or chapter of the TSD to the EPA WACOR for further review.

The Final Economic Analysis TSD report will be due at the time of the Administrator’s Signature of the Proposed Regulations Implementing SDWA Section 1417: Prohibition on Use of Lead Pipes, Solder, and Flux, currently scheduled for August 2016.

Deliverables: Draft TSD chapters and revisions to the TSD chapters at technical direction of EPA WACOR. For work planning purposes, up to 2 draft of each TSD chapter may be required. The contractor should assume three iterations of each draft document: 2 drafts and 1 final draft for each chapter.

### **Task 4: Issue Papers and Technical Support**

The contractor shall develop issue papers and technical analyses as identified through written technical direction by the EPA WACOR. EPA anticipates that some issues may become high priority during this review process and may require analytical support for internal Agency decision-making processes. Upon direction from the EPA WACOR, the contractor shall collect summary information on particular issues (e.g., manufacturing production practices), risk assessment background and status information, and perform preliminary cost-benefit analyses.



Deliverables: For work planning purposes, up to 3 analyses may be required. The contractor shall assume three iterations of each document: 2 drafts and 1 final.

#### **G. SCHEDULE OF DELIVERABLES:**

**508 compliance:** The contractor shall ensure that all 508 compliant documents developed in this task and in all tasks outlined in this work assignment will align with EPA's 508 compliance checks (keywords, titles, tables, tags, etc.). The contractor is responsible for maintaining and utilizing the same version of Adobe as the EPA for purposes of developing and maintaining 508 compliant documents. To the extent practical, documents which are developed for this work assignment, and are to be 508 compliant should be designed to be such from their inception, minimizing the effort for conversion and maximizing 508 compliance quality assurance.

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No of Copies/Medium</b>
<b>0</b>	<b>Work Plan, monthly progress reports</b>	<b>Per contract requirements</b>	<b>Per contract requirements</b>
<b>1</b>	<b>Draft spreadsheet on labeling and certification cost analysis.</b>	<b>2 weeks after written technical from WACOR</b>	<b>1 copy of each draft/ electronically submitted via e-mail</b>
	<b>Final draft spreadsheet on labeling and certification cost analysis.</b>	<b>2 weeks after written technical from WACOR. The final document shall also be 508 compliant.</b>	<b>1 copy of each final / electronically submitted via e-mail</b>
<b>2</b>	<b>Up to 2 Documents outlining significant changes to the existing methodology or databases, and new types of analysis</b>	<b>7 days after receiving written technical direction from WACOR.</b>	<b>1 copy of each/ electronically submitted via e-mail</b>
<b>3</b>	<b>Draft TSD chapters.</b>	<b>2 weeks after written technical from WACOR</b>	<b>1 copy of each draft / electronically submitted via e-mail</b>
	<b>Final draft TSD chapters.</b>	<b>2 weeks after written technical from WACOR. The final document shall also be 508 compliant.</b>	<b>1 copy of final / electronically submitted via e-mail</b>
<b>4</b>	<b>Up to 3 issue papers and/or technical analyses as requested.</b>	<b>7 days after receiving written technical direction from WACOR. The final document shall also be 508 compliant.</b>	<b>1 copy of each draft and final/ electronically submitted via e-mail</b>

**H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 840 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

**I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** No travel is anticipated for this Work Assignment.

**K. SPECIAL REPORTING REQUIREMENTS:** None

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per contract requirements.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-24				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name OW NWP Research Coordination				
Contractor Cadmus Group, Inc., The					Specify Section and paragraph of Contract SOW Section 2.1, 2.2, 2.4, 3.2, 3.3, 4.0, 5.0 and 6.0					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   05/04/2016   To   04/30/2017					
Comments: Work assignment issuance to Option Period 4.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
11/01/2012   To   04/30/2017				0						
This Action:				565						
Total:				565						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Mary Reiley  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1123 FAX Number:				
Project Officer Name   Ronald Coleman  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8491 FAX Number:				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Noelle Mills  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2171 FAX Number:				

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-24**

**A. TITLE:** Support for Office of Water Research Coordination and National Water Program Research Management Strategy

**B. PERIOD OF PERFORMANCE:** May 4, 2016 through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Mary Reiley  
Health and Ecological Criteria Division, 4304T  
Office of Science and Technology, Office of Water  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
Phone: 202-566-1123  
Fax: 202-566-1139

**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Diana Eignor  
Health and Ecological Criteria Division, 4304T  
Office of Science and Technology, Office of Water  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
Phone: 202-566-1143  
Fax: 202-566-1139

**D. BACKGROUND:**

The Office of Water (OW) Program Offices (OST, OGWDW, OWOW, OWM and IO) and Regions developed a National Water Program Research Strategy for 2009 – 2014 and a draft 2015 Supplement to: (1) outline programmatic objectives and research questions and detail the necessary scientific and technical investigations and products to answer them; and (2) advance collaboration with EPA and non-EPA investigators. The Strategy and the draft Supplement are resources for National Water Program (NWP) staff and managers as they work with internal and external research organizations to leverage Water research needs. OW is implementing the Research Strategy and draft Supplement through meetings, workshops, outreach, communications, annual reports, focused strategy and action plan development. The draft Supplement, when completed, will reflect the emerging science needs of the National Water Program. The National Water Program (NWP) also maintains an Executive Committee for Research (Ex.Com) which is staffed by the NWP Research Points of Contact (POC). The Ex.Com and POC work together to identify the science, tools, and methods needed to advance programmatic goals

and environmental outcomes and work with ORD, other researchers, and stakeholders to translate those needs into science questions and research portfolios. The POC is a liaison, information gatherer, and consensus builder between the Ex.Com., ORD, and other partners and stakeholders.

Objective 1: Provide program management and analysis, technical writing, meeting\*, workshop\*, and outreach support for the National Water Program Executive Committee for Research (Water-ECR made up of the OW DAA and OD's) and National Water Program Points of Contact (NWP-POCs made up of senior staff from OST, OGWDW, OWM, OWOW, IO, Regions, and the OW Associate Director for Science) related to research coordination between OW and other EPA Offices and current and potential non-EPA collaborators as well as Strategy maintenance and implementation.

\*Meeting and workshop session costs are estimated to not reach the \$20K threshold for SRO approval.

Objective 2: Provide science needs identification and strategic planning support to the National Water Program Executive Committee for Research and NWP-POCs related to collaborative and coordinated research and science based policy goals.

#### **E. QUALITY ASSURANCE:**

The tasks in this work assignment do not require the use of **primary** or **secondary** data. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project Specific Quality Assurance Project Plan (PQAPP). Rather, the contractor will provide a refinement within the workplan, specific to the activities under this work assignment for sections B.9; B.10 (.2, .3, .4, .6, .7). The entirety of the QAPP does not apply to the work assignment. Relevant sections include: B.9; B.10 (.2, .3, .4, .6, 7); B.11.3; and C.2.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 3-24, Tasks 2 and 3. In addition the work plan shall specify that a Supplemental Project Specific

Quality Assurance Project Plan (SQAPP) appending the Contract Level QAPP or a PQAPP is not required. This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks so that they include the collection and analysis of data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

**Deliverables:** Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

#### Task Area 2: Maintain National Water Research Strategy and Supplement

The NWP Research Strategy and the Supplement will provide conceptual directions but the specific project needs must be adjusted from year to year to reflect changes in budgets, priorities, completed, and new work. The contractor shall maintain the National Water Research Strategy and Supplement (in its Excel spreadsheet format) to reflect new areas and priorities for inquiry to support the National Water Program. Information and leads on new areas and priorities will be provided by EPA. Working with the WACOR, the contractor shall update the Excel spreadsheet that serves as the science needs detail for the Strategy and Supplement each year between June 1 and October 30.

The spreadsheet shall be maintained in Excel.

#### Task Area 3: Support to NWP-POCs and Water Executive Committee for Research

The contractor shall provide technical and public presentation and outreach writing, as well as meeting logistical and facilitation support for the research coordination activities and efforts of the NWP-POCs and NWP Executive Committee on Research. This support shall include the creation of: briefing materials (power point presentations, agendas, Fact Sheets, resource binders and contents, posters), outreach products including the twice annual Recent Water Research News Letter, project tracking spreadsheets and schedules, and focused strategy and action plans.

The contractor shall anticipate 2 local meetings/briefings of 1 to 2 day duration in the Washington, D.C. area over the course of the period of performance. One is likely to need facilitation (Basic familiarity with the NWP Research Strategy and ORD Strategic Research Plans is needed. Technical/scientific background is not necessary) and logistical assistance (note taking, advance materials, name placards, hotel block). The contractor can assume that EPA will provide the facilities (i.e., there is no need to plan for facilities or meal charges).

- 1 Executive Research Committee Meeting: unfacilitated, usually held in February, briefing materials, including but not limited to power point, spreadsheets, and fact sheets delivered in appropriate electronic format
- 1 OW-ORD Management Meeting: contractor facilitated, date TBD, 40 attendees, briefing materials, including but not limited to power point, spreadsheets, and fact sheets delivered in appropriate electronic format.

The contractor shall anticipate preparing a Strategy-Supplement pamphlet, or poster for use with current and potential collaborators that shall be web-ready (PDF and 508 compliant) and delivered in Word (or the appropriate software for the content and purpose) and PDF. Presentation posters shall have a finished size of 3' x 4' and printed in full color on quality stock. Newsletters shall be approximately 7 double sided pages (total of 14 sides) provided in both Word, PDF, and 508 compliant. Anticipate delivery of: 1 poster; 1 pamphlets; 2 Newsletters.

#### **G. SCHEDULE OF DELIVERABLES:**

Task	Deliverable	Due to EPA	No of Copies/Medium
<b>0</b>	Work Plan	Per Contract Requirements	Per Contract Requirements
	Monthly Reports	Per Contract Requirements	Per Contract Requirements
<b>2</b>	Supplement Excel spreadsheet	Between June 1 and October 30	Electronic Excel
<b>3</b>	ECR briefing materials	Provided per Technical Direction	TBD Electronic Format
<b>3</b>	OW-ORD Management Meeting briefing materials and facilitation	Provided per Technical Direction	TBD Electronic Format
<b>3</b>	Recent Water Research Newsletter	August 2016 and March 2017	Electronic Word, PDF, 508 compliant
<b>3</b>	Poster and/or Pamphlet	Provided per Technical Direction	Poster: 1 in hardcopy as above and Electronic PDF and 508; Pamphlet: 1 page double sided Electronic PDF, 508, and Word

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 565 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, CL COR and WA COR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

#### **J. TRAVEL:**

Travel is authorized for quarterly meetings with the WACOR and facilitating workshops and meetings. Quarterly Contractor-WACOR meetings (typically 1.5 hours) and up to two workshops and meetings (typically 1 – 2 days) will be held at EPA Headquarters in Washington, D.C.

#### **K. SPECIAL REPORTING REQUIREMENTS:**

The contractor will hold weekly 30 minute conference calls for planning purposes with the COR to provide updates on project status, next steps, and resolve challenges. The contractor will report the number of hours and funds expended on a monthly basis in each monthly report.

#### **L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements



<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-27				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-12-023			Contract Period 11/01/2012 To 04/30/2017			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number                      4			Water Infrastructure Financing				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW Sections 2.3 and 6.0					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From 05/01/2016 To 04/30/2017					
Comments: The purpose of this amendment is to add new Tasks 3, 4 and 5.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
11/01/2012 To 04/30/2017				650						
This Action:				1,800						
Total:				2,450						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name    Sonia Brubaker						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-0120				
						FAX Number:				
Project Officer Name    Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name    Erin Ridder						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2155				
						FAX Number:				
Contracting Official Name    Donna Reinhart						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2114				
						FAX Number:				

**PERFORMANCE WORK STATEMENT**  
**CADMUS CONTRACT EP-C-12-023**  
**WORK ASSIGNMENT 4-27**

**A. TITLE:** Water Infrastructure and Resiliency Finance Center – Finance Forum and General Financial Technical Assistance Support

**B. PERIOD OF PERFORMANCE:** Effective Date through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER’S REPRESENTATIVE (WA COR):**

Sonia Brubaker  
Office of Wastewater Management  
1200 Pennsylvania Ave., NW  
Mail Code 4201T  
Washington, DC 20460  
(202) 564-0120  
[brubaker.sonia@epa.gov](mailto:brubaker.sonia@epa.gov)

**ALT WORK ASSIGNMENT CONTRACTING OFFICER’S REPRESENTATIVE (WA COR):**

Michael Patella  
Office of Wastewater Management  
1200 Pennsylvania Ave., NW  
Mail Code 4201T  
Washington, DC 20460  
(202) 566-0605  
[patella.michael@epa.gov](mailto:patella.michael@epa.gov)

**D. BACKGROUND:**

On January 16, 2015, Administrator Gina McCarthy joined Vice President Biden to announce EPA's new Water Infrastructure and Resiliency Finance Center (the Center). This Center of financial expertise supports the Build America Investment Initiative - a government-wide effort to increase infrastructure investment and promote economic growth. The Center serves as a financing information resource for communities, municipal utilities, and private entities as they seek to address their water infrastructure needs and invest in sustainable long-term solutions.

Innovation in financing and increased resiliency are key components to meeting water infrastructure needs. Through information sharing, partnerships and community engagement, the Center plays an important role in elevating the critical importance of financing water infrastructure. The Center is working to:

- *Promote innovative financing approaches.* The Center encourages effective use of federal, state and local funds and works with the private sector, where appropriate, to build partnerships to increase water infrastructure investment.
- *Support and expand capacity building efforts through collaborative technical assistance.* The Center is working with states, communities, universities and non-profits to help utilities explore financing options for their local needs. The Center provides information for developing sustainable funding sources for water efficiency, energy efficiency, water reuse, stormwater, and green infrastructure.

#### **E. QUALITY ASSURANCE:**

A supplemental quality assurance project plan (SQAPP) is required for the activities in Task 2 as they involve the generation, management, distribution or use of primary or secondary environmental data that will be used or have the potential for use in environment decision making. EPA has determined that the process outlined by the contractor in the current approved SQAPP is appropriate for the work outlined under Task 2 of this work assignment.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

This task also includes monthly progress and financial reports. The monthly progress report shall summarize activities conducted for the reporting period, and in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks involving the collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

**Deliverables:** Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

### **Task 1: Finance Forums**

The contractor shall provide support to EPA for the series of finance forums that EPA will hold in various EPA regions. These forums will bring together communities with drinking water, wastewater, and stormwater project financing needs with various financing sources and information. The forums will be an opportunity for communities to meet key regional federal and state agency contacts and technical assistance providers to learn about financing challenges and solutions. For planning purposes, the contractor should assume a total of five finance forums within this period of performance (Region 3 - June 15-16, 2016 (Big Stone Gap, VA), Region 1 - September 2016, Region 2 – October 2016, Region 9 - December 2016, and March 2017).

The finance forum will be co-sponsored with the local Environmental Finance Centers. The audience will include utilities and community leaders from drinking water, wastewater, and stormwater utilities.

While the specific locations and dates have not yet been selected, the contractor shall assume the forums will be held in a major city in the EPA Region within 60 miles of the regional office. For planning purposes, the contractor should assume each forum will be 1.5-days in length and will require 2 on-site support staff.

#### **Task 1.a. Pre-Forum Activities**

The contractor shall support EPA by with session logistics including developing necessary background materials prior to the meeting including but not limited to information on specific water infrastructure financing needs for each of the participating communities, compiling state financing contact information, and developing session discussion questions. Prior to starting work, technical direction with further details will be provided if support is needed.

**Deliverables:** The contractor shall support EPA by compiling state financing contact information, and developing session discussion questions.

#### **Task 1.b. On-site Forum Activities**

The contractor shall support EPA in on-site finance forum activities and logistics coordination. Session facilitation shall be by an experienced facilitator knowledgeable of water sector utility upfront planning and finance issues. In addition an individual familiar with water utilities is needed to take notes.

**Deliverables:** The contractor shall support EPA by facilitating forum sessions and taking notes during the sessions.

#### **Task 1.c. Post-Forum Activities**

The contractor shall support EPA in post-finance forum activities including preparing a post-forum summary with notes from sessions. In addition, case study write ups shall be provided for projects presented in the sessions.

Deliverables: The contractor shall prepare a post-forum summary based on the notes taken during the forum. This summary shall contain lessons learned and options for future forums. In addition, case study write ups shall be provided for projects presented in the sessions.

EPA expects the total cost of each individual forum will exceed the agency threshold of \$20,000. Agency approval will be obtained approximately 3 weeks prior to the event. Note: These recurring finance forums are an expected deliverable from the Water Finance Center and the three previous forums were approved by the agency.

## **Task 2: Financial Technical Assistance and Guidance**

As directed by the WA COR through technical direction, the contractor shall support EPA's assistance to the Center by providing research that will support the Center in helping communities explore financing options to address their clean water and drinking water obligations. This research shall include innovative financing mechanisms to further water efficiency, energy efficiency, green infrastructure, and other climate change resilience and adaptation practices.

### **Task 2.a. General Program Support**

The contractor shall support EPA by synthesizing information from regional Water Finance Center coordinator conference calls. The contractor shall attend regional coordinator conference calls and take notes.

The contractor shall provide general program support or financial technical assistance support for the Office of Wastewater Management including topics of affordability, State Revolving Funds, and other general financial topics. The contractor shall provide quick turn-around tasks such as participating in conference calls with HQ staff on various finance topics, developing one-pagers/fact sheets, and presentations. Other activities shall include researching utility financing needs and developing white papers, financial decision support tools, and community models of sustainable financing. Work shall also include providing sharing successes through training, outreach and branding, and peer-to-peer learning workshops. Prior to starting work, technical direction with further details will be provided.

Deliverables: The contractor shall attend regional coordinator conference calls and take notes. Summary notes will be prepared and delivered to the WA COR after each call.

In addition, the contractor shall provide quick turn-around tasks such as participating in conference calls with HQ staff on various finance topics, developing one-pagers/fact sheets, and presentations. Other activities shall include researching utility financing

needs and developing white papers, financial decision support tools, and community models of sustainable financing. Work shall also include providing sharing successes through training, outreach and branding, and peer-to-peer learning workshops.

For planning purposes, the contractor shall assume monthly 1 hour regional coordinator conference calls, up to ten 1 hour HQ conference calls, two factsheets, and one 10 page research analysis on a financing topic.

#### **Task 2.b. Resiliency Financing**

The contractor shall support EPA with resiliency financing approaches. Research on resiliency funding provided at the federal, state, private, and non-profit levels will be performed to update the Center's website. As a result of this research, the contractor shall identify areas where the Center can collaborate with other agencies and non-profits to provide assistance and information to communities with water resiliency financing needs.

Deliverables: The contractor shall support EPA in updating the Center's website on resiliency funding options. The contractor shall provide recommendations on collaboration approaches.

#### **Task 2.c. Financial Technical Assistance**

The contractor shall develop financial technical assistance materials such as developing alternatives analyses, pre-application processes, affordability analyses, rate setting analyses, and community financing models for long-term sustainability. These write-ups may include affordability considerations and partnership opportunities such as public-private partnerships or public-public partnerships. Prior to starting work, technical direction with further details will be provided if support is needed.

Deliverables: The contractor shall support EPA in developing templates for alternatives analyses, pre-application processes, affordability analyses, rate setting analyses, and community financing models for long-term sustainability. These write-ups may include affordability considerations and partnership opportunities such as public-private partnerships or public-public partnerships. These materials are intended to provide guidance for communities who are seeking information from the Center and will be posted on EPA's website. For planning purposes, assume developing two write-ups/templates.

#### **G. SCHEDULE OF DELIVERABLES:**

<b>Task</b>	<b>Deliverable</b>	<b>Date Due to EPA</b>
Task 0	Work Plan and Budget Development  Monthly Progress Reports	In accordance with Contract requirements.  In accordance with contract requirements

	Supplemental Quality Assurance Project Plan	Within 10-days of work assignment issuance
Task 1.a	Draft documents Final documents	Within 2 weeks of technical direction Within 2 weeks of feedback on drafts
Task 1.b	Summary notes for each session	Within 3 days of forum completion
Task 1.c	Draft forum summary Final forum summary	Within 1 week of forum completion Within 2 weeks of EPA comments
Task 2.a	Notes from regional coordinator calls Quick turn-around tasks	Within 2 days of coordinator calls Based on technical direction from WA COR, typically 1-3 days within TD
Task 2.b	Draft and Final website mock-ups and write-ups	Based on technical direction from WA COR
Task 2.c	Draft and Final write-ups	Based on technical direction from WA COR

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 650 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

EPA has identified events that may potentially incur \$20,000 in cost. The contractor shall track and report cost associated with each individual event in accordance with the EPA Office of the Chief Financial Officer's March 10, 2016 Conference Spending Guide [http://intranet.epa.gov/fmdvally/conferences/documents/conference\\_spending\\_guide.pdf](http://intranet.epa.gov/fmdvally/conferences/documents/conference_spending_guide.pdf)

#### **J. TRAVEL:**

Travel is required to attend Finance Forums. Each forum is scheduled for either 1 or 1 and a half days.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-28								
		<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:								
Contract Number EP-C-12-023	Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name SDWA Stakeholder Engage Mtgs								
Contractor Cadmus Group, Inc., The		Specify Section and paragraph of Contract SOW Section 1.6, 6.0								
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   05/01/2016   To   04/30/2017								
Comments: Initial work assignment issuance										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
11/01/2012   To   04/30/2017				0						
This Action:				1,170						
Total:				1,170						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Lameka Smith						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-1629				
						FAX Number:				
Project Officer Name   Ronald Coleman						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8491				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name   Noelle Mills						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 513-487-2171				
						FAX Number:				



**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT 4-28**

**A. TITLE:** Support for the Safe Drinking Water Act Task Force Meetings

**B. PERIOD OF PERFORMANCE:** May 1, 2016 through September 30, 2016

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WA COR):**

Lameka Smith  
US EPA, Room 2316D  
1200 Pennsylvania Ave., NW  
MC 4607M  
Washington, DC 20460  
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**ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWA COR):**

Debbie Newberry  
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**D. BACKGROUND:**

Since its enactment over 40 years ago, the Safe Drinking Water Act (SDWA) has yielded tremendous success in improving drinking water quality nation-wide. In accordance with SDWA, EPA establishes federal requirements applicable to public water systems – in the form of National Primary Drinking Water Regulations – and the states have primacy in implementing those regulations.

The crisis in Flint, Michigan represents a tragic failure of this system that has also revealed potential weaknesses in federal and state oversight of drinking water systems nationwide, as well as challenges with management of the drinking water data that is necessary to properly identify issues that must be addressed to ensure protection of public health. The recent drinking water emergencies in Toledo, Ohio and Charleston, West Virginia reinforce the need for near term and sustained action to ensure the safety of the nation's drinking water through proper administration of the SDWA in coordination with state co-regulators, regulated utilities, and key nongovernmental stakeholders.

The purpose of this work assignment is to provide support to the EPA in engaging key drinking water stakeholders on priority issues related to effective implementation of the Safe Drinking Water Act. The EPA will hold three separate full-day meetings in May and June 2016, with expert attendees from each of the following three groups:

- 1) ~15 Leaders of state drinking water primacy agencies, with participation from leadership of the Environmental Council Of States, Association of State and Territorial Health Officials, and Association of State Drinking Water Administrators
- 2) ~15 Leading representatives of large, medium and small drinking water utilities, including participation of drinking water utility associations
- 3) ~15 Leading representatives of environmental, consumer, and public health organizations

EPA is not seeking consensus/group recommendations on direction from meeting participants. The objective of each of the three meetings will be to discuss the strategic opportunities to advance federal, state, and local policy development and program implementation in the following four priority areas:

1. Oversight of Safe Drinking Water Act Implementation;
2. Environmental Justice and Equity in Infrastructure Funding;
3. Lead and Copper Rule;
4. Emerging/Unregulated Contaminants, including deployment of emerging technologies.

Contractor support provided will be in the form of identification of national policy and/or technical drinking water experts from key stakeholder organizations, collection and dissemination of pre-meeting materials, logistics including travel arrangements, meeting space, multimedia and supplies, note-taking, and summary documents.

#### **E. QUALITY ASSURANCE:**

The tasks in this work assignment do not require environmental measurements, the contractor is not required to prepare a supplement the Contract Level Quality Assurance Project Plan (QAPP).

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. The work plan shall project the cost for travel for all of the proposed participants selected as experts for each meeting. In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and control costs.

In accordance with contract reporting requirements the contractor shall submit a monthly progress report. The report shall summarize activities conducted for the reporting period. Monthly financial

reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level COR (CL COR) and WA COR if any changes to the tasks require collection and analysis of the data occur and prepare a SQAPP supplementing the Contract Level (QAPP] accordingly. Work on these tasks cannot proceed until the contractor receives the EPA CL COR's notification of approval.

Deliverables: Work plan and monthly progress and financial reports submitted in accordance with contract requirements.

### **Task 1: Support for the SDWA Task Force Stakeholder Meetings**

**1.1.a.** The contractor shall provide support for the SDWA Task Force by identifying approximately 15 national level policy and/or technical experts from the following organizations:

- 1) State drinking water regulatory agencies located in both state departments of the environment and state departments of health, as well as key local associations including the Environmental Council of States, the Association of State and Territorial Health Officials, and the Association of State Drinking Water Administrators.
- 2) Senior representatives of large, medium and small drinking water utilities and drinking water utility associations, including the American Water Works Association, the Association of Metropolitan Water Agencies, the National Rural Water Association, the National Association of Water Companies, and the Council of Water Infrastructure Finance Authorities.
- 3) Environmental, consumer, and public health organizations, including Clean Water Action, American Public Health Association, Environmental Defense Fund, Natural Resources Defense Council, American Academy of Pediatrics

Within 5 days of work assignment issuance, the contractor shall submit a list to the EPA that includes the name and position of each organizations' proposed expert attendee for EPA's approval. For any individual not accepted by EPA, the contractor shall provide an equally qualified alternate. Meeting participants will be expected to take an active role in presenting organizational perspectives on the charge to the EPA and the group. The contractor shall collect and disseminate materials submitted by national experts to members of each group prior to the meeting including materials developed by the EPA and the facilitator that will facilitate discussions. The contractor shall work with each expert to prepare all travel arrangements including flights, per-diem and lodging if applicable. For planning purposes, the contractor shall assume one night's lodging. No travel arrangements will be required for individuals within the local commuting area of Washington DC. The contractor must employ or contract with the presenters in order for the travel expenses to be approved and paid for under the work assignment. Travel expenses shall only be paid to the individuals performing a direct function of the work assignment.

**1.1.b.** The contractor shall provide written notes of each meeting, in draft and in final form, in a format directed by the WACOR in technical direction. The notes shall be a summary level document of each meeting which will include, at a minimum, a list of meeting participants; major issues discussed; experts' ideas proposed for each action item on the agenda; and any discussion for post-meeting actions. In addition, the contractor shall develop an internal summary report for each individual meeting as well as a consolidated report of all three meetings. There are to be three deliverables for the SDWA Task Force meeting summaries:

(1) A table outlining expert input from each meeting by priority action; this table is due not more than five

working days after each expert meeting; (2) A draft summary of each meeting due not more than five working days after the final meeting; (3) A final summary which incorporates comments, due not more than five working days after the receipt of comments from EPA. For planning purposes, the contractor should assume a three expert stakeholder meetings during this period of performance.

Meeting logistical support shall contain, but may not be limited to the following: Controlled access meeting space appropriate for a facilitated meeting of 25 experts at one table plus auxiliary seating for those attending the meeting in support of experts (limited to one per expert). It is EPA's understanding that the contractor's facility is available for these meetings at no direct charge to the work assignment. The meeting space shall be able to accommodate projected presentations, and shall also include other facilitation and office supplies as needed, such as name placards, flip charts and markers, note pads and pens. For planning purposes, the contractor may assume a minimal amount of copying cost associated with the meeting (likely to be fewer than 500 pages). Photocopying shall be within the limitations set forth on Section H-2 of the contract.

#### **G. SCHEDULE OF DELIVERABLES:**

**508 compliance:** The contractor shall ensure that all 508 compliant documents developed in this task and in all tasks outlined in this work assignment will align with EPA's 508 compliance checks (keywords, titles, tables, tags, etc.). The contractor is responsible for maintaining and utilizing the same version of Adobe as the EPA for purposes of developing and maintaining 508 compliant documents. To the extent practical, documents which are developed for this work assignment, and are to be 508 compliant should be designed to be such from their inception, minimizing the effort for conversion and maximizing 508 compliance quality assurance.

<b>TASK</b>	<b>TASK DESCRIPTION</b>	<b>DEADLINES</b>
0	Work plan and monthly progress reports	Per contract
1	Safe Drinking Water Task Force Meeting support deliverables	Identify approximately 45 national level policy and/or technical experts from key stakeholder organizations. Proposed experts within 5 days of work assignment issuance.
		Arrange travel (airline, lodging) for those outside Washington, DC metropolitan area within 3 days of final agreed upon experts

		A table outlining expert input from each meeting by priority action; this table is due not more than five working days after each expert meeting
		A draft summary of each meeting due not more than 5 working days after the final meeting.
		A final summary which incorporates comments, due not more than five working days after the receipt of comments from EPA.

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 1,170 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The three events identified in this work assignment will incur cost that exceed the agency's \$20,000 net obligate threshold. The required agency authorization has been obtained for these events. The contractor shall track, monitor and report cost associated with each of the events identified in accordance with the EPA Office of the Chief Financial Officer's March 10, 2016 Conference Spending Guide [http://intranet.epa.gov/fmdvally/conferences/documents/conference\\_spending\\_guide.pdf](http://intranet.epa.gov/fmdvally/conferences/documents/conference_spending_guide.pdf)

#### **J. TRAVEL:**

As outlined in Tasks 1.1.a, the contractor shall make travel arrangements for all contractor selected, EPA approved, meeting participants outside of the Washington, DC commuting area. Arrangements shall include: airline, ground transportation, hotel and per diem. All arrangements shall be in accordance with Federal Acquisition Regulations (FAR) and EPA Acquisition Requirements (EPAAR). All travel shall be authorized in advance by the EPA Contract Level COR.

#### **K. SPECIAL REPORTING REQUIREMENTS:**

The three events identified in this work assignment will incur cost that exceed the agency's \$20,000 net obligate threshold. The required agency authorization has been obtained for these events. The

contractor shall track, monitor and report cost associated with each of the events identified in accordance with the EPA Office of the Chief Financial Officer's March 10, 2016 Conference Spending Guide [http://intranet.epa.gov/fmdvally/conferences/documents/conference\\_spending\\_guide.pdf](http://intranet.epa.gov/fmdvally/conferences/documents/conference_spending_guide.pdf)

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** Per Contract requirements

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-30				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-12-023			Contract Period   11/01/2012   To   04/30/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Lead Service Line Replacement				
Contractor CADMUS GROUP, INC., THE					Specify Section and paragraph of Contract SOW Section 1.5.4					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   10/28/2016   To   04/30/2017					
Comments: New work assignment issuance										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE: 0					
11/01/2012 To 04/30/2017										
This Action:					1,020					
Total:					1,020					
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name   Jerry Ellis							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 202-564-2766			
							FAX Number:			
Project Officer Name   Ronald Coleman							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 202-564-8491			
							FAX Number:			
Other Agency Official Name   Erin Ridder							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 513-487-2155			
							FAX Number:			
Contracting Official Name   Donna Reinhart							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 513-487-2114			
							FAX Number:			

**PERFORMANCE WORK STATEMENT  
CADMUS CONTRACT EP-C-12-023  
WORK ASSIGNMENT NO. 4-30**

**A. TITLE:** Lead Service Line Replacement Analysis for the Long-term Revisions to the Lead and Copper Rule

**B. PERIOD OF PERFORMANCE:** Effective Date through April 30, 2017

**C. WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WACOR):**

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**D. BACKGROUND:**

EPA is interested in the barriers in state or local laws that would affect a public water system's ability to replace lead service lines on private property. In addition, EPA would like to understand how some water systems have been successful in implementing full lead service line replacement programs. The current Lead and Copper Rule (LCR) requires a public water system that is triggered into the lead service line replacement requirements (40 CFR 141.84) to only replace the part of the service line that it owns, typically the part that goes from the water distribution main to the property line of a home or building. This is based on EPA's interpretation of the statutory definition of "public water system" in Section 1401 of the Safe Drinking Water Act (SDWA) which provides:

The term "public water system: means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at



least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (ii) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

EPA's interpretation of the phrase "under control of the operator of such system" has evolved over time. In the 1991 LCR, EPA interpreted control "as being present in cases where a system has authority to replace or repair or maintain the line" and created a rebuttable presumption that a system controlled lead service lines. 56 Fed. Reg. 26,460, 26,503-05 (June 7, 1991). That provision of the rule was vacated because the Court reviewing the rule found that EPA "failed to provide adequate notice that it would adopt a novel definition of control." *American Water Works Association v. EPA*, 40 F.3d 1266, 1275 (1994). In response to the Court's ruling, EPA sought comment on the definition of control and concluded that "the broader definition of 'control' (that is, the water system would be required to replace the portion of the LSL that it owns plus any additional portion of the line that it has the authority to replace) could result in unintended delays and other complications." 65 Fed. Reg. 1950, 1963 (January 12, 2000). Accordingly, EPA chose to "equate 'control' with 'ownership' in order to eliminate potential legal confusion and delays in implementing the Rule." *Id.*

EPA is currently considering options for revising the Lead and Copper Rule to encourage or require full lead service line replacements over partial lead service line replacements. EPA needs a better understanding of the legal and practical barriers that public water systems would face in carrying out full lead service line replacements. In addition, EPA would like to identify all federal sources of money (grants, loans, earmarks, lead abatement programs, etc.) that can be used for lead service line replacement.

Some cities currently have or have completed voluntary full lead service line replacements programs. EPA is interested in the cities of Madison, WI, Lansing, MI, San Francisco, CA, Providence, RI, and Washington, D.C., and Flint, MI. EPA would like to identify any legal or practical barriers the water systems faced when implementing their programs. Of particular interest are all the types of costs involved with full replacements—not just cost to the property owners and the system; also EPA needs to identify the sources of funding that were used to cover those costs and how systems addressed any legal or practical barriers.

Lastly, there is a potential waste stream to consider. EPA is interested to know what cities have done with the lead pipes once they are removed. In particular, EPA wants to know if these pipes are currently used in the lead recycling industry and if so, how is the lead processed and what products are made from the recycled material.

## **E. QUALITY ASSURANCE:**

Tasks 1-3 in this work assignment require use of secondary data. Prior to any work commencing under these tasks, the contractor must submit and EPA must approve a Supplemental Quality Assurance Project Plan (SQAPP), consistent with the Agency's Quality Assurance (QA) requirements, appending the

Contract Level Quality Assurance Project Plan. The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

#### **F. TASK DESCRIPTION:**

##### **Task 0: Work Plan, SQAPP, and Monthly Progress Reports**

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

The contractor shall submit an SQAPP to ensure the quality of the data involved with work under Tasks 1-3. During the period of performance, the contractor shall immediately notify the project officer (PO) and WACOR before any changes to the task including the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract Level QAPP accordingly. Work on this task cannot proceed until the contractor receives notification of the new SQAPP approval from the PO via e-mail.

This task also includes monthly progress and financial reports. The monthly progress reports shall summarize activities conducted for each task to date, and shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. Additionally, financial statement shall separately identify the monthly invoiced period and cumulative LOE and costs.

The contractor shall document the project manager's review and describe the QA/QC process performed on all deliverables. The QA/QC review of deliverables shall include, but not be limited to, spell/grammar check, accuracy/consistency with EPA regulatory requirements and an accurate record of all references used in the preparation of deliverables.

Within 5 days of work assignment issuance, the contractor shall contact the WACOR to setup a kickoff conference call. The purpose of the call is to discuss project details. During work assignment performance, the contractor shall plan to participate on one conference call per month with the EPA WACOR. The calls are expected to be one hour in duration. The contractor shall provide for the taking of conference call notes and shall provide a copy to the WACOR within three working days of the conclusion of the meeting/call.

All EPA direction under this work assignment will be provided as written technical direction from the WACOR and is subject to the limitations in the Technical Direction Clause. When technical direction is issued by EPA, the contractor must confirm receipt of the direction in writing within 3-calendar days. If technical direction is provided to the contractor by EPA verbally, EPA must confirm the direction in writing within 5-calendar days. If the contractor does not receive written follow-up to EPA's verbal technical direction within 5-calendar days, the contractor shall notify the EPA WACOR, PO, and Contracting Officer. EPA shall provide final acceptance in writing for all draft/final deliverables.

**Deliverables:**

- Kickoff meeting (or conference call)
- Work plan, schedule, staffing plan, and LOE estimates for each task outlined below
- Monthly progress and financial reports
- Telephone or email status reports and notes (as necessary)

### **Task 1: Federal funding**

List and write short descriptions of all sources of federal funding—excluding sources already provided by EPA—in the United States that a public water system could use to replace lead service lines. In particular, pipes made of lead positioned anywhere between the public water system’s water main and the site served, such as residences and small buildings.

#### *Task 1 Deliverable:*

- (1) Summary report along with a bibliography

### **Task 2: Research**

An EPA law clerk began researching on state or local laws that could affect a water system’s ability to replace drinking water service lines on private property in Illinois, New Jersey, Michigan, Missouri, and Texas. EPA will provide the contractor with the draft summary of that research and other relevant reports. The contractor shall research the relevant state and local statutes, and public utility commission regulations that govern water systems in the states of Illinois, New Jersey, Michigan, Missouri, Texas, Massachusetts, Iowa, Washington, Ohio, New York, Florida, Mississippi, Pennsylvania, and Colorado to answer the questions below:

#### **Questions**

1. Many state and local laws, or water tariff agreements specify when the system or the customer is responsible for repairing and replacing service lines.
  - Where such laws or agreements specify that the customer is responsible for repairing or replacing all or part of a service line, are there any general or specific laws authorizing a public water system to nonetheless replace a service line on private property? If so, under what circumstances -- e.g., must there be an emergency and/or must the system secure the permission of the property owner?
  - Could the laws or water tariff agreements be changed and if so, what is the process for doing so?
  - Could a state, local government, or a water system use nuisance law to force the removal of lead service lines on private property?
2. Where public water systems are authorized to conduct a service line replacement on private property with or without out permission of the owner, are there laws governing how the system may cover the cost of the work? If so, would the laws preclude a system from covering the cost of the work if the system chose to do so?

3. If there are laws that prohibit the use of “public funds” for “private purposes” or on private property, would those laws apply to the replacement of lead service lines by a public water system? If so, why?
  - Are the funds collected by a government owned water system considered “public funds”?
  - Are funds collected by a privately owned water system considered “public funds”?
  - What types of activities on private property have been considered “public” purposes?
4. Are there any other laws that might be interpreted to preclude a water system from conducting a full lead service line replacement where part of the service line is on private property (e.g. trespass laws)? If so, are there any exceptions to those laws for emergencies and/or to protect public health?

Notification: The contractor shall notify the EPA WACOR as soon as it projects to reach 25%, 50%, and 75% of the LOE hours approved for Task 2.

*Task 2 Deliverable:*

- (1) A report addressing the questions above including citations to all relevant laws, regulations, cases, and secondary materials relied on.

**Task 3: Lead service line replacement costs, waste stream and recycling**

Review the full lead service line replacement programs for the cities of Madison, WI, Lansing, MI, San Francisco, CA, Providence, RI, Washington, D.C., and Flint, MI. Answer the following questions and summarize into a report:

- (1) How did those cities overcome any legal or practical barriers to full lead service line replacements where a portion of the LSL was on private property?
- (2) How did the water systems cover the costs of the LSLs? Did the system absorb the cost and/or use state or federal grant funding, or did the system charge each customer with a LSL for the cost of their specific LSL replacement?
- (3) What other costs are involved with LSL replacements, such as road closures, coordination with other utilities, liability insurance, landscaping, etc?
- (4) How have these cities disposed of or recycled their lead service lines (including any lead “pig tails” and “goosenecks”), and what is the universe of facilities that would accept these materials? Is there a market for recycling lead pipes, and if so, what types of products could be made from the material?

*Task 3 Deliverable:*

- (1) A report addressing the questions above for each city listed, along with a bibliography.

**G. SCHEDULE OF DELIVERABLES**

<b>Task</b>	<b>Deliverable</b>	<b>Due to EPA</b>	<b>No. Copies</b>
<b>0</b>	Kickoff conference call	As identified in the EPA WACOR's written technical direction	N/A
<b>0</b>	SQAPP	Within 10 days of work assignment issuance	1 electronic copy
<b>0</b>	Workplan (including schedule, staffing plan and LOE estimates for each task)	Per contract requirements	1 electronic copy
<b>0</b>	Monthly progress and financial reports	Per contract requirements	1 electronic copy
<b>0</b>	Biweekly telephone or email status reports (as needed)	Biweekly; starting on the first week of the WA (as needed)	1 electronic copy
<b>1</b>	Draft Summary Report	As identified in the EPA WACOR's written technical direction.	1 electronic copy
<b>1</b>	Final Summary Report	For planning purposes, the Contractor shall assume 10 days after EPA provides comment on the draft document	1 electronic copy
<b>2</b>	Draft Summary Report	As identified in the EPA WACOR's written technical direction.	1 electronic copy
<b>2</b>	Final Summary Report	For planning purposes, the Contractor shall assume 10 days after EPA provides comment on the draft document	1 electronic copy
<b>3</b>	Draft Summary Report	As identified in the EPA WACOR's written technical direction	1 electronic copy
<b>3</b>	Final Summary Report	For planning purposes, the Contractor shall assume 10 days after EPA provides comment on the draft document	1 electronic copy

#### **H. LEVEL OF EFFORT ESTIMATES:**

EPA estimates that 1020 professional hours will be required to complete the tasks outlined in this Performance Work Statement.

#### **I. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:**

The contractor shall immediately notify the EPA Contracting Officer, Project Officer and Work Assignment Manager of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

**J. TRAVEL:** EPA does not anticipate any travel under this work assignment.

**K. SPECIAL REPORTING REQUIREMENTS:** The Contractor and EPA WACOR shall engage in a conference call at the beginning of the project to clarify any questions, further describe work already conducted by EPA, and any other issues that arise related to the project. The Contractor shall engage in conference calls or meetings as necessary to discuss the progress of each of the tasks of the work assignment, difficulties encountered, suggested changes to the analytical approach, spending estimates and any other related topics that may arise. The Contractor shall contact the EPA WACOR immediately if any problems arise that may affect the schedule or resources of the project. The contractor shall notify the EPA WACOR of anticipated LOE expenditures as outlined in notification requirement under Task 2.

The tasks in this work assignment are not anticipated to involve confidential business information (CBI), require government furnished property, or need expert testimony. No special responsibilities are anticipated.

**L. QUALITY ASSURANCE SURVEILLANCE PLAN:** The quality assurance surveillance plan performance standards developed for the contract will apply to this work assignment.

**M. REFERENCES:** Relevant references will be provided to the Contractor by the EPA WACOR during performance.